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CONSOLIDATED TRANSLATION SURVEY

Number 126

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CONSOLIDATED TRANSLATION SURVEY

FOR JUNE 1968

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CONSOLIDATED TRANSLATION SURVEY

PREFACE

This survey is prepared by the Central Intelligence Agency from lists received through the cooperation of US government agencies and includes translations prepared by such agencies, private industry, universities, research institutions, and commercial translation organizations. It is a compilation of foreign documentary projects completed or started during the preceding month.

Translations are listed by area and subject category. Scientific projects are grouped as a section regardless of geographic area. Title in English, author, foreign language title of source of material, date of publication identification of the completed projects are given when available. Tables of contents of journals translated cover-to-cover are reproduced from the current publications.

Projects in process, i.e., not completed as of the date of this survey, are noted with an asterisk (*), and, when available, a project-control or "in-process" number is noted in parentheses following the title. Certain details may be unavailable on such projects. New projects in process are not listed again until they are completed.

Scientific and technical translations are grouped according to the COSATI subject category list except for military science and ordnance items which are listed under "military" in the appropriate geographic areas.

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(see CFSTI)

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AEC - Atomic Energy Commission (see CFSTI)

AERE Harwell Lib

Atomic Energy Research Establishment,
Harwell, Berkshire
England

AF

Department of Air Force
Assistant Chief of Staff, Intelligence
ATTN: AFCIN-3D
Washington, D. C.

AGU

American Geophysical Union
1515 Massachusetts Avenue, NW
Washington, D. C. 20005

AIP

American Institute of Physics
335 East 45th Street
New York, New York 10017

APL/JHU

The Johns Hopkins University
Applied Physics Laboratory
8621 Georgia Avenue
Silver Spring, Maryland 20910

BISI

British Iron and Steel Industry Translation Service
The Iron and Steel Institute
4 Grosvenor Gardens
London, S. W. 1, England

CB

Consultants Bureau Enterprises, Incorporated
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CFSTI

Clearinghouse for Federal Scientific and
Technical Information (Formerly Office of
Technical Services)
Port Royal and Braddock Roads
Springfield, Virginia 22151

CTT

Columbia Technical Translations
5 Vermont Avenue
White Plains, New York 10600

DIA

Defense Intelligence Agency
Washington, D. C. 20301

FP

The Faraday Press, Incorporated
84 Fifth Avenue
New York, New York 10011

FSTC

Defense Documentation Center
Cameron Station
Alexandria, Virginia

FTD - Foreign Technology Division (see AF)

HB

Henry Brutcher Technical Translations
P.O. Box 157
Altadena, California 91001

HEW - (see NIH)

IEEE

Institute of Electrical and Electronics Engineers
275 Madison Avenue
New York, New York 10016

Department of Interior

Department of Interior
Room 8015
Branch of Foreign Fisheries (Translations)
Division of International Affairs
Bureau of Commerical Fisheries
Washington, D. C. 20240

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U. S. Department of Commerce
Clearinghouse for Federal Scientific and
Technical Information
Joint Publications Research Service
Building Tempo E,
East Adams Drive, 4th and 6th Streets, SW
Washington, D. C. 20443

Maritime Admin

Maritime Administration
Office Services
GAO, 5th and G Streets, NW
Washington, D. C.

NASA

National Aeronautics and Space Administration
1512 H Street, NW
Washington, D. C. 20546

NIC

Naval Intelligence Command
Naval Intelligence Command Headquarters
NIC-15
Washington, D. C. 20350

NIH

Circulation Unit
Readers Services Section
Library Branch, DRS
National Insitutes of Health
Building 10, Room 5N118
Bethesda, Maryland 20014

NMS

U. S. Naval Medical School
National Naval Medical Center
Bethesda, Maryland 20014

OSA

Optical Society of America, Incorporated
33 University Road
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Scientific Information Center
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National Aeronautics and Space Administration
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UCRL

University of California
Lawrence Radiation Laboratory
Livermore, California
(see AFC)

USSR

Economic

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RUSSIAN, per, Agitator, No. 4, Moscow, Feb 68, pp. 8-11, 22-23.
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DIA LN 649-68

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Gas Industry on the 50th Anniversary of October, by M. V. Sudorenko, 10 pp.
RUSSIAN, rpt, Gas Industry on the 50th Anniversary of October, pp 1-7.
DIA LN 577-68

Main Trends of the Transport Five-Year Plan, by N.A. Gundobin, 7 pp.
RUSSIAN, newspaper, Gudok, Moscow, 2 April 68, p. 1.
JPRS 45,264

Problems in Planning Siberia's Development. Part I, by L. Shinkarev, 6 pp.
RUSSIAN, newspaper, Izvestiya, Moscow, 21 March 68, p. 2.
JPRS 45,181

Problems in Planning Siberia's Development. Part II, by L. Shinkarev, 7 pp.
RUSSIAN, newspaper, Izvestiya, Moscow, 27 March 68, p. 3.
JPRS 45,181

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JPRS 45,359

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RUSSIAN, journal, Izvestiya Sibirekogo Otdeleniya Akademii Nauk SSR, Novosibirsk, Sept. 67, pp. 49-55.
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Economic Reform and Finances, by V. Garbuzov, 14 pp.
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RUSSIAN, newspaper, Komsomol'skaya Pravda, Moscow, 3 April 68, p. 2.
JPRS 45,229

Problems of Conservation in Turkmen SSR, by N. Nachayeva, 5 pp.
RUSSIAN, newspaper, Komsomol'skaya Pravda, Moscow, 9 April 68, p. 2.
JPRS 45,355

Economic Aspects of Supply Organization Discussed, by V. Kurotchenko, 20 pp.
RUSSIAN, per, Material'no-tekhnicheskoye Snaabzheniye, No. 3, Moscow, 1968, pp. 1-13.
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Statistics of Equipment Utilization Should be Improved, by N. Khorunzhaya, 5 pp.
RUSSIAN, per, Material'no-tekhnicheskoye Snaabzheniye, No. 3, Moscow, 1968, pp. 27-29.
JPRS 45,480

Recommendations for Improving Supply Planning and Organization, by A. Ol'shanetskiy, 9 pp.
RUSSIAN, per, Material'no-tekhnicheskoye Snaabzheniye, Moscow, No. 3, 1968, pp. 37-42.
JPRS 45,480

USSR
Economic (Contd)

A New Dwelling District in Vladivostok.
RUSSIAN, per, Na Stroykakh Rossii, No 12, Dec 1967.
DIA LN 580-68

New Projects - A Theatre at Lipetsk.
RUSSIAN, per, Na Stroykakh Rossii, No 12, Dec 1967.
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JPRS 45,439

USSR
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Shkoly Ekonomicheskoye Nauki, No. 2, Moscow,
1968, pp. 55-62.
JPRS 45,439

Payment for Use of Natural Resources Urged
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G. Pospelov, 6 pp.
RUSSIAN, per, Nedelya, Moscow, 24 March 68,
p. 14.
JPRS 45,218

Improved Planning Proposed, by P. Krylov
and M. Chistyakov, 16 pp.
RUSSIAN, per, Planovoye Khozyaystvo,
March 68, Moscow, pp. 11-23.
JPRS 45,218

Intra-Plant Planning Under the New Conditions
by L. Starikov, 14 pp.
RUSSIAN, per, Planovoye Khozyaystvo,
Moscow, No. 3, March 68, pp. 35-43.
JPRS 45,131

The Economic Reform and Financial Planning,
by Ya. Liberman, 11 pp.
RUSSIAN, per, Planovoye Khozyaystvo, Moscow,
March 68, pp. 52-61.
JPRS 45,131

Proposals to Improve Effectiveness of Capital
Investments in Construction, by R. Merkin, 13 pp.
RUSSIAN, per, Planovoye Khozyaystvo, Moscow,
March 68, pp. 77-83.
JPRS 45,218

Improvement Needed in Economic Calculations,
by L. Kryzhev, 5 pp.
RUSSIAN, per, Planovoye Khozyaystvo,
Moscow, March 68, pp. 93-95.
JPRS 45,327

Economic Reform Requires Further Improve-
ment in Price Formation, by A. Komin, 12 pp.
RUSSIAN, per, Planovoye Khozyaystvo, Moscow,
No. 4, 1968, pp. 3-10.
JPRS 45,440

USSR
Economic (Contd)

Credit and Technical Progress, by N. Smirnov,
7 pp.
RUSSIAN, per, Planovoye Khozyaystvo,
Moscow, No. 4, April 68, pp. 11-15.
JPRS 45,471

Industry Needs Economy of Time, Money,
Material, by V. Ivanov and V. Murav'yev,
5 pp.
RUSSIAN, newspaper, Pravda, Moscow,
1 March 68, p. 1.
JPRS 45,131

Adjustments Planned in System of Fines, by
P. Bunich and V. Perlamutrov, 6 pp.
RUSSIAN, newspaper, Pravda, Moscow,
2 April 68, p. 2.
JPRS 45,327

Alma-Ata Housing Construction Mismanagement
Scored, by V. Zimin and G. Ivanov, 5 pp.
RUSSIAN, newspaper, Pravda, Moscow,
5 April 68, p. 2.
JPRS 45,234

Introduction of the Five-Day Workweek, by
I. Kostikov and K. Tsikanov, 8 pp.
RUSSIAN, np, Pravda Vostoka, Tashkent,
3 April 68, p. 2.
JPRS 45,359

Creating Incentives and Improving Planned
Maintenance, by D.A. Shartukh, 5 pp.
RUSSIAN, per, Promyshlennost Belorussii,
Minsk, March 68, pp. 1-11.
JPRS 45,395

Problems With Cost Accounting and Extension
of the System, by G.L. Bulgakov and
B.S. Andrianov, 6 pp.
RUSSIAN, per, Promyshlennost Belorussii,
Minsk, March 68, pp. 2-4.
JPRS 45,395

Conserving Material Resources, by L.Ya.
Gorelik, 5 pp.
RUSSIAN, per, Promyshlennost Belorussii,
Minsk, March 68, pp. 13-17.
JPRS 45,395

USSR
Economic (Contd)

Better Use of Material Incentives, by
G. Mantsurov and T. Selivanova, 5 pp.
RUSSIAN, np, Rabochaya Gazeta, Kiev,
19 March 68, p. 3.
JPRS 45,229

About the Work of the Crew of the Large Refri-
g-rated Trawler Tikhvin.
RUSSIAN, per, Rybnoe Khoz, Vol 44, No 1, 1968,
pp 40-41.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Results of Work with the Mid-Water Pair Trawl,
by A. N. Laskin.
RUSSIAN, per, Rybnoe Khoz, Vol 44, No 1, 1968,
pp 42-44.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Experience of the Work of the Crew of SRT-124,
Grunant.
RUSSIAN, per, Rybnoe Khoz, Vol 44, No 1, 1968,
pp 48-49.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Efficiency of Operation of the Electric Trawl,
by N. T. Sechin and V. I. Romanenko.
RUSSIAN, per, Rybnoe Khoz, Vol 44, No 1, 1968,
pp 56-58.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

A Graphic Chart of Utilization of Vessel.
RUSSIAN, per, Rybnoe Khoz, Vol 44, No 1, 1968,
pp 78-81.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Scientifically Based Wholesale Prices -- the
Basis for Transfer of Enterprises to the New
Working Conditions, by I. T. Vitkin.
RUSSIAN, per, Rybnoe Khoz, Vol 44, No 1, 1968,
pp 82-83.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

USSR
Economic (Contd)

Training of Engineer Cadre for the Fishing
Industry -- the Economic Accounting, by
A. L. Meerov.
RUSSIAN, per, Rybnoe Khoz, Vol 44, No 1, 1968,
pp 86-87.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Prospects for the Development of Fish-Cutting
Machines, by V. Ponomukhin.
RUSSIAN, per, Rybnoe Khoz, Vol 44, No 1, 1968,
p 94.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Party Control of Economic Activity, by
V. Marzlyakov, 11 pp.
RUSSIAN, np, Sel'skaya Zhizn', Moscow,
16 March 68, p. 3.
JPRS 45,236

The Development of Incentive-Award Systems
for the Quality of Output, by R. Skugarevskiy,
13 pp.
RUSSIAN, per, Sotsialisticheskii Trud, Moscow,
No. 2, Feb 68, pp. 10-18.
JPRS 45,271

Organization of the Wages and Labor Pro-
ductivity of Machine-Tool Operators, by
P. Parfenov and M. Shor, 11 pp.
RUSSIAN, per, Sotsialisticheskii Trud,
Moscow, No. 2, Feb 68, pp. 26-32.
JPRS 45,271

Guaranteed Payment of the Labor of Kolkhoz
Members in Action, by T. Rumyantseva and
L. Pakhorskiy, 14 pp.
RUSSIAN, per, Sotsialisticheskii Trud,
Moscow, No. 2, Feb 68, pp. 39-47.
JPRS 45,271

Answers to Enterprise Workers Concerning the
Practical Aspects of the Changeover to the
New System of Planning and Economic Stimu-
lation, 5 pp.
RUSSIAN, per, Sotsialisticheskii Trud,
Moscow, No. 2, Feb 68, pp. 51-53.
JPRS 45,271

USSR
Economic (Contd)

Economic Interdependence of Estonia and Other Union Republics Emphasized, by L.A. Tul'p, 5 pp.
RUSSIAN, np, Sovetskaya Estoniya, Tallin, 3 April 68, p. 2.
JPRS 45,229

Labor Productivity in Estonian SSR, by A. Veymer, 7 pp.
RUSSIAN, np, Sovetskaya Estoniya, Tallin, 11 April 68, p. 2.
JPRS 45,355

The Five-Day Work Week and Trade, 6 pp., by V. Shimanskiy, 6 pp.
RUSSIAN, np, Sovetskaya Torgoviya, Moscow, 26 March 68, p. 1.
JPRS 45,197

Meeting of Trade Unions in Light Industry, 8 pp.
RUSSIAN, np, Sovetskaya Torgoviya, Moscow, 18 April 68, pp. 1-2.
JPRS 45,359

The Functions and Organ of Management, by V.G. Vishnyakov, 18 pp.
RUSSIAN, per, Sovetskoye Gosudarstvo i Pravo, Moscow, No. 3, 1968, pp. 30-39.
JPRS 45,327

Factors Affecting the Quality and Reliability of Products, by A. V. Glichev.
RUSSIAN, per, Standarty i Kachestvo, No 6, 1966, pp 69-71. P200099868
RSIC-775

The City Architectural and Planning Organisation, by V. Antonov, 7 pp.
RUSSIAN, per, Stroitel'stvo i Arkhitektura (Kiev), June 1967, pp 10-12.
DIA LN 606-68

Effective Method of Standardization and Wages, by V.I. Svirapov, 6 pp.
RUSSIAN, per, Stroitel'stvo i Arkhitektura Leningrada, No. 2, Feb 68, pp. 16-19.
JPRS 45,335

USSR
Economic (Contd)

High Economic Cost of Bad Roads, by V.I. Zaluzhnyy, 5 pp.
RUSSIAN, np, Trud, Moscow, 21 March 68, p. 2.
JPRS 45,388

Military Economist's Handbook, by I. V. Safronov, 529 pp.
RUSSIAN, rpt, USSR Ministry of Defense Voennoye Izdatel'stvo, 1966, pp Cover to 463.
DIA LN 472-68

Checking the Representativeness of the Sample When Inspecting Family Budgets, by I. Venetskiy and I. Matyukha, 11 pp.
RUSSIAN, per, Vestnik Statistiki, Moscow, Jan 68, pp. 42-48.
JPRS 45,131

International Economic Conference in Moscow, by Laslo Keniyz, 11 pp.
RUSSIAN, per, Vestnik Statistiki, Moscow, 1 Jan 68, pp. 70-74.
JPRS 45,196

International Economic Conference in Moscow, by Laslo Keniyz, 10 pp.
RUSSIAN, per, Vestnik Statistiki, Moscow, 1 Jan 68, pp. 70-74.
JPRS 45,129

Questions and Answers on Recomputing Building Costs at 1969 Prices, by S. Gubarev, 10 pp.
RUSSIAN, per, Vestnik Statistiki, Moscow, March 68, pp. 77-84.
JPRS 45,355

Forecasting Expanded Reproduction, by A. Motkin, 17 pp.
RUSSIAN, per, Voprosy Ekonomiki, Moscow, No. 2, Feb 68, pp. 3-15.
JPRS 45,131

Further Improvement in Economic Planning, by Yu. Koldomasov, 12 pp.
RUSSIAN, per, Voprosy Ekonomiki, Moscow, No. 2, Feb 68, pp. 16-24.
JPRS 45,131

USSR
Economic (Contd)

Economic Problems of the Design and Development of New Enterprises, by A. Khagay, 8 pp.
RUSSIAN, per, Voprosy Ekonomiki, Moscow, No. 2, 1968, pp. 122-126.
JPRS 45,218

Location of Industry and Methods of Estimating Transport Expenditures, by V. Chernyavskiy, 8 pp.
RUSSIAN, per, Voprosy Ekonomiki, Moscow, No. 2, 1968, pp. 126-130.
JPRS 45,463

The Economic Reform and Problems in Industrial Control, by D. Allakhverdyan and Ye. Slastenko, 13 pp.
RUSSIAN, per, Voprosy Ekonomiki, Moscow, No. 3, 1968, pp. 16-25.
JPRS 45,234

Regulation of Profits in Industry, by E. Kuprinov, 11 pp.
RUSSIAN, per, Voprosy Ekonomiki, Moscow, No. 3, 1968, pp. 46-53.
JPRS 45,334

Development Tendencies of World Socialist Economy, by I. Dudinskiy, 18 pp.
RUSSIAN, per, Voprosy Ekonomiki, Moscow, No. 3, 1968, pp. 73-84.
JPRS 45,334

Material Interest Under Socialism, by L. Nikiforov, 18 pp.
RUSSIAN, per, Voprosy Ekonomiki, Moscow, March 68, pp. 112-122.
JPRS 45,333

Construction of Socialism in Various Countries, by D. Moskvina, 15 pp.
RUSSIAN, per, Voprosy Ekonomiki, Moscow, No. 3, 1968, pp. 123-130.
JPRS 45,334

Material Responsibility of the Industrial Personnel, by S. Protserov, 7 pp.
RUSSIAN, per, Voprosy Ekonomiki, Moscow, No. 3, 1968, pp. 131-133.
JPRS 45,234

USSR
Economic (Contd)

A New Institute of the International Workers' Movement, by O. Melikyan, 9 pp.
RUSSIAN, per, Voprosy Ekonomiki, Moscow, No. 3, 1968, pp. 155-158.
JPRS 45,334

Fifty Years of Soviet Rule, by V. Piskunov, 8 pp.
RUSSIAN, per, Zhizishchnoye, Stroitelstvo, Dec 1967, pp. 2-4.
DIA LN 578-68

The Soviet Railways, by Charles Billy, 25 pp.
FRENCH, per, La Vie Du Rail, 19 Nov 1967, pp. 6-13.
DIA LN 549-68

Political

The "Dove" Has Been Released, by I. Belyayev, et al, 112 pp.
RUSSIAN, bk, "Golub'" Spushchen: "Molodaya Gvardiya" Publishing House, Moscow, 1968, 158 pp.
JPRS 45,466

The Long Range Plan of the Party Committee, by Yu. Makov and B. Alekseyev, 9 pp.
RUSSIAN, per, Kommunist, No. 1, Moscow, Jan 68, pp. 26-33.
JPRS 45,265

The Communist Education of the Working People, 13 pp.
RUSSIAN, per, Kommunist, No. 3, Moscow, Feb 68, pp. 3-13.
JPRS 45,217

The Unity of Society Born of Socialism, by M. Igithkanyan, 14 pp.
RUSSIAN, per, Kommunist, No. 3, Moscow, Feb 68, pp. 55-66.
JPRS 45,217

The Women and Socialism, by V. Bil'shay, 11 pp.
RUSSIAN, per, Kommunist, No. 3, Moscow, Feb 68, pp. 80-88.
JPRS 45,217

USSR
Political (Contd)

The Historical Destiny of the Social Democracy, by Ernst Genri, 17 pp.
RUSSIAN, per, Kommunist, No. 3, Moscow, Feb 68, pp. 89-102.
JPRS 45,217

Twenty Months of Chinese "Cultural Revolution", by Jean-Emile Vidal, 19 pp.
RUSSIAN, per, Kommunist, No. 3, Moscow, Feb 68, pp. 103-118.
JPRS 45,217

Intensification of Party Work Urged, by Maj.Gen. I. Mednikov, 13 pp.
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, March 68, pp. 8-17.
JPRS 45,326

Improved Political Work in Remote Units Proposed, by Maj. Gen. A. Mirskiy, 10 pp.
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, March 68, pp. 26-32.
JPRS 45,326

Political Work on Long Ocean Cruises, by Vice-Adm. F. Sizov, 9 pp.
RUSSIAN, per, Kommunist Vooruzhennykh Sil, March 68, pp. 39-44.
JPRS 45,326

The Reactionary Military Clique -- The Enemy of the Latin American Peoples, by L. Tachalin, 10 pp.
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, No. 6, March 68, pp. 78-83.
JPRS 45,376

Reflections on the American Intelligentsia, by I. Kon, 32 pp.
RUSSIAN, per, Novyy Mir, Moscow, No. 1, 1968, pp. 173-197.
JPRS 45,158

Role of Communism in Agriculture, 14 pp.
RUSSIAN, per, Sel'skaya Zhizn', Moscow, 6 April 68, p. 4.
JPRS 45,324

Increased Activity in the Struggle Against Pilferages of Socialist Property, by K. Pavlishchev, 10 pp.
RUSSIAN, per, Sotsialisticheskaya Zakonnost', No. 2, Feb 68, pp. 3-9.
JPRS 45,370

USSR
Military

Parachute Trainer, by A. A. Knyazev.
RUSSIAN, rpt, Description of Invention No 197412
Opisaniye Izobreteniya, 24 Dec 1967, pp 1-2.
*ACSI J-4912
*FSTC-HT-23-175-68

V.I. Lenin and the Soviet Armed Forces, by Rear Admiral V. Shelyag, 14 pp.
RUSSIAN, per, Kommunist, No. 3, Moscow, Feb 68, pp. 14-24.
JPRS 45,217

The Greatness of the Soviet Army and the Helplessness of its Critics, by P. Derevyanko and O. Rzheshhevskiy, 9 pp.
RUSSIAN, per, Kommunist, No. 3, Moscow, Feb 68, pp. 25-32.
JPRS 45,217

The Current Revolution in Military Affairs: Sources and Nature, by S. Tyushkevich.
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No 20, 1966, pp 17-25.
*FTD-HT-23-400-68

Modern Stage of Revolution in Military Affairs and the Claim to Military Personnel, by V. Bondarenko.
RUSSIAN, per, Kommunist Vooruzhennykh Sil (Navy), 1968, pp 18-25.
*FTD-HT-23-437-68

Better Correspondence Education for Soviet Military Engineers, by N. Byzhko, 10 pp.
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, Feb 68, pp. 36-41.
JPRS 45,268

Party Organizations in Soviet Army and Navy, by Col. V. Komissarov, 11 pp.
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, pp. 47-52.
JPRS 45,268

Scientific and Technological Progress and Soviet Defense, by A. Chagrinets and N. Dovbnya, 12 pp.
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, Feb 68, pp. 53-59.
JPRS 45,268

USSR
Military (Contd)

Increased Role of Science in the Military Field Stressed, by Lt. Col. V. Bondarenko, 11 pp.
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, March 68, pp. 18-25.
JPRS 45,326

New Regulations Regarding the Equipment of the Armed Forces of the USSR, by A. Grechko, 22 pp.
RUSSIAN, np, Krasnaya Zvezda, 7 Sep 1960, 1 p.
FI00079668
FTD-HT-67-208

The Law of the Rocket Service, by N. I. Krylov, 7 pp.
RUSSIAN, np, Krasnaya Zvezda, No 24, 28 Jan 1967, p 2.
FI00080268
FTD-HT-67-207

Visit of Marshal Su A.A. Grechko to Iraq, by Col. A. Sgibnev, 7 pp.
RUSSIAN, np, Krasnaya Zvezda, Moscow, 14 April 68, p. 3.
JPRS 45,443

Visit of Marshal Su A.A. Grechko to Syria, by Lt. Col. A. Sgibnev, 7 pp.
RUSSIAN, np, Krasnaya Zvezda, Moscow, 16 April 68, p. 3.
JPRS 45,443

Visit of Marshal Su A.A. Grechko to Egypt, by Lt. Col. A. Sgibnev, 6 pp.
RUSSIAN, np, Krasnaya Zvezda, Moscow, 20 April 68, p. 5.
JPRS 45,443

The Battle of Stalingrad, by Marshal V. Chuykov, 9 pp.
RUSSIAN, per, Ogonak, Moscow, No. 3, Jan 68, pp. 5-7.
JPRS 45,268

Fifty Years of the Soviet Navy, by S.G. Gorchkov, 9 pp.
RUSSIAN, per, Ogonak, Moscow, No. 6, Feb 68, pp. 6-8.
JPRS 45,268

USSR
Military (Contd)

Training for Submarine Personnel, by Rear Adm. I. Papylev, 5 pp.
RUSSIAN, np, Red Star, Moscow, 28 March 68, p. 2.
JPRS 45,192

Development of VTOL Aircraft Described, by Lt. Col. L. Chuyko, 9 pp.
RUSSIAN, np, Red Star, Moscow, 24 March 68, p. 2.
JPRS 45,192

Ocean Fleet (Soviet Naval Forces).
RUSSIAN, np, Sovetskiy Voin, No 24, 1967, pp 2-3.
*FTD-HT-23-455-68

Civil Defense of the USSR.
RUSSIAN, np, Sovetskaya Latvya, No 178, 1967, p 2.
*ACSI J-4962
*FSTC-HT-23-184-68

Reminiscences of Soviet Army by S.M. Budenny, by S.M. Budenny, 6 pp.
RUSSIAN, per, Starshina Serzhant, Moscow, No. 2, Feb 68, pp. 2-3.
JPRS 45,146

Work of A.N. Tupolev Outlined Briefly, by M. Novikov, 5 pp.
RUSSIAN, per, Starshina Serzhant, Moscow, No. 2, Feb 68, pp. 18-19.
JPRS 45,146

Profile of M.A. Rudnitskiy, Submarine Designer, by V. Dem'yanov, 5 pp.
RUSSIAN, per, Starshina Serzhant, No. 2, Feb 68, pp. 20-21.
JPRS 45,146

Interview With General I.G. Pavlovskiy, Infantry, 5 pp.
RUSSIAN, per, Starshina Serzhant, Moscow, No. 2, Feb 68, pp. 38-39.
JPRS 45,146

Interview With Marshal Su N.I. Krylov, 5 pp.
RUSSIAN, per, Starshina Serzhant, Moscow, No. 3, March 68, pp. 6-7.
JPRS 45,398

USSR
Military (Contd)

Protection Against Radioactive Contamination, by Lt. Col. I. Grabovoy, 5 pp.
RUSSIAN, per, Starshina Serzhant, No. 3, March 68, pp. 14-15.
JPRS 45,398

Methodology, Experiment, Result, by Capt. V. Nikolayev, and Capt. Yu. Varganov, 5 pp.
RUSSIAN, per, Starshina Serzhant, Moscow, No. 3, March 68, pp. 22-23.
JPRS 45,398

The U.S. Radio in Psychological Warfare, by A. Ponfilov.
RUSSIAN, bk, The U. S. Radio in Psychological Warfare, 1967.
*ACSI J-4632
ID 2204013968

Mission of Soviet Forces in Europe, by Maj. Gen. A. Shevchenko, 13 pp.
RUSSIAN, journal, Voyenno-Istoricheskiy Zhurnal, Moscow, No. 10, 1957, pp. 29-38.
JPRS 45,165

The Structure of Party Organizations of the Soviet Armed Forces (1945-1950), by Col. Yu. Petrov, 11 pp.
RUSSIAN, per, Voyenno-Istoricheskiy Zhurnal, Moscow, No. 3, 1968, pp. 3-11.
JPRS 45,165

Rokossovskiy Recalls World War II Operations, by Marshal K. Rokossovskiy, 17 pp.
RUSSIAN, per, Voyenno-Istoricheskiy Zhurnal, Moscow, Feb 68, pp. 64-76.
JPRS 45,268

The Origin and Essence of a Strategic of "Flexible Response", by Capt V. Kulikov, 12 pp.
RUSSIAN, journal, Voyenno-Istoricheskiy Zhurnal, No. 3, 1968, pp. 40-49.
JPRS 45,165

A Brief History of the Soviet Armed Forces, by M. Zakharov, 6 pp.
RUSSIAN, journal, Voyennyye Znaniya, No. 2, Moscow, Feb 68, pp. 1-3.
JPRS 45,130

USSR
Military (Contd)

The Role of DOSAAF In Training Youth, by A. Getman, 7 pp.
RUSSIAN, journal, Voyennyye Znaniya, No. 2, Moscow, Feb 68, pp. 4-6.
JPRS 45,130

Adapting Basements for Cover, by V. Morozov and A. Khomko, 6 pp.
RUSSIAN, journal, Voyennyye Znaniya, No. 2, Moscow, Feb 68, pp. 26-27.
JPRS 45,130

The Role of Naval Clubs in Training the Youth, by G. Osinov, 5 pp.
RUSSIAN, journal, Voyennyye Znaniya, No. 2, Moscow, Feb 68, pp. 44-45.
JPRS 45,130

What Alarm Signals Mean, by V. Vinogradov, 5 pp.
RUSSIAN, per, Voyennyye Znaniya, Moscow, No. 3, 1968, pp. 18-19.
JPRS 45,343

The T-54 Tank, by Col. Ya. Orekhov, 11 pp.
RUSSIAN, per, Za Rulem, Moscow, Feb 68, pp. 6-7, Diagrams pp. 18-19.
JPRS 45,192

Military Training Institutions and the Training of Officers in the USSR, by Erich Ferdinand Pruck, 25 pp.
GERMAN, per, Wehrkunde, Vol XVI, No 10, 10 Oct 1967, pp 523-530.
DIA LN 659-68

Fire Protection in the Soviet Union, 7 pp.
ITALIAN, rpt, Enc. to Ir 2-850-0113-68, Nov 1967 pp 696-700.
DIA LN 619-68

Firefighting and Civil Defense Protection Against Fire in the Soviet Union, by N. Nazarov, 11 pp.
ITALIAN, rpt, Anticendio e Protezione Civile, 107 Nuova Serie, Vol II, 1967, pp 696-700.
DIA LN 692-68

Italian Interview With USSR Chief of Staff, by Enzo Roggi, 5 pp.
ITALIAN, per, L'Unita, Rome, 23 Feb 68, p. 3.
JPRS 45,192

USSR
Geographic

Aerial Photography and Map Making of the Forests of Siberia, by G. P. Motovilov.
RUSSIAN, bk, Aerofotos"yanka i Kartografirovaniye Lesov Sibiri,
*ACST J-4781
*FTC HT-23-46-68

Taranrog - A Seaport, by G. Dorfman, 7 pp.
RUSSIAN, per, Vodnyy Transport, 14 Dec 1967,
p 3.
DIA LI 466-68

Sociological

Problems of Vocational Education, by
A. Solov'yev, 9 pp.
RUSSIAN, per, Ekonomicheskiye Nauki,
Moscow, Feb 68, pp. 33-38.
JPRS 45,271

Re-Evaluation of RSFSR Higher Education
Urged, by V. Stoletov, 6 pp.
RUSSIAN, newspaper, Izvestiya, Moscow,
27 Dec 67, p. 5.
JPRS 45,189

Brief Review of New Books, by P. Sharpilo
and V. Vasil'yev, 5 pp.
RUSSIAN, per, Kommunist, No. 3, Moscow,
Feb 68, pp. 124-126.
JPRS 45,217

Labor Discipline Violators Analyzed by
Age, Seniority, and Violations, by L. Kyaya,
9 pp.
RUSSIAN, per, Kommunist Estonii, Tallin,
March 68, pp. 36-42.
JPRS 45,333

Broader Struggle Against Infringements of
Law, by N. Chistyakov, 9 pp.
RUSSIAN, per, Kommunist Vooruzhennykh Sil,
Moscow, Feb 68, pp. 42-46.
JPRS 45,268

USSR
Sociological (Contd)

New Projects - Dining Hall Club.
RUSSIAN, per, Na Stroykakh Rossii, No 12, Dec
1967.
DIA LN 580-68

A Student's Town in Sverdlovsk.
RUSSIAN, per, Na Stroykakh Rossii, No 12, Dec
1967.
DIA LN 580-68

A Disservice to Atheists, by A. Sulatskov, 5 pp.
RUSSIAN, per, Nauka i Religiya, Moscow,
No. 2, 1966, pp. 94-95.
JPRS 45,479

Religion Dies Away During the Course of Social
Development, by V. Yevdokimov, 7 pp.
RUSSIAN, per, Nauka i Religiya, Moscow,
No. 9, 1967, pp. 6-10.
JPRS 45,479

Model Themes for Lectures on Scientific
Atheism, 9 pp.
RUSSIAN, per, Nauka i Religiya, No. 10,
Moscow, 1967, pp. 90-93.
JPRS 45,479

Scientific-Technical Revolution and
Christian "Revolutionary Character",
by Yevg. Babosov, 10 pp.
RUSSIAN, per, Nauka i Religiya, Moscow,
No. 11, 1967, pp. 60-67.
JPRS 45,479

Concrete Social Research and Atheism,
by V. Yevdokimov, 8 pp.
RUSSIAN, per, Nauka i Religiya, Moscow,
No. 1, 1968, pp. 22-23.
JPRS 45,479

Atheistic Propaganda and the Formation of
A Scientific World Outlook, by A. Kurantov
and P. Sumarev, 7 pp.
RUSSIAN, per, Nauka i Religiya, Moscow,
No. 1, 1968, pp. 30-33.
JPRS 45,479

USSR
Sociological (Contd)

Greater Work Safety Urged, by V. Andreyev, 7 pp.
RUSSIAN, per, Okhrana Truda i Sotsial'-noye Strakhovaniye, No. 4, Moscow, 1968, pp. 7-9.
JPRS 45,393

Vocational Technical Education in the Current Five-Year Plan, by G. Zelenskiy, 6 pp.
RUSSIAN, journal, Professional'no Tekhnicheskoye Obrazovaniye, Moscow, 3 Jan 68, pp. 4-5.
JPRS 45,189

Sovkhoz Operations Control Service, by P. Chernov, 11 pp.
RUSSIAN, np, Sel'skaya Zhizn, Moscow, 6 April 68, p. 3.
JPRS 45,324

M. Gedvilas' Report at the 3rd Congress of Lithuanian Teachers, by M. Gedvilas', 17 pp.
RUSSIAN, np, Sovetskaya Litva, Vil'nyus, 26 March 68, pp. 1-2.
JPRS 45,189

Individual Development -- A Problem of Pedagogical Anthropology, by B.G. Anan'yev, 14 pp.
RUSSIAN, per, Sovetskaya Pedagogika, Moscow, No. 1, 1968, pp. 21-30.
JPRS 45,435

Theoretical Work in the Field of Labor, by D. Kaydalov, 4 pp.
RUSSIAN, np, Sovetskaya Rossiya, 11 Feb 68, p. 2.
JPRS 45,155

New Plans for Evening and Correspondence School Students, by I.I. Lebedev, 13 pp.
RUSSIAN, per, Vestnik Vyshey Shkoly, Moscow, No. 9, 1967, pp. 29-36.
JPRS 45,188

A Method for Improving the Education of Scientists and Research Engineers, by N.N. Semenov, 8 pp.
RUSSIAN, per, Vestnik Vyshey Shkoly, No. 11, Moscow, 1967, pp. 45-48.
JPRS 45,435

USSR
Sociological (Contd)

Description of Research Activity at Higher Educational Institutions, by V.I. Krutov, 12 pp.
RUSSIAN, per, Vestnik Vyshey Shkoly, Moscow, No. 11, 1967, pp. 56-64.
JPRS 45,435

Dynamic Cities Envisaged in Future, by V. Lamm, 6 pp.
RUSSIAN, per, Znaniye-Sila, Moscow, No. 1, Jan 68, pp. 3-5.
JPRS 45,157

Eastern Europe

Economic

More Attention Should be Given to Economizing on the Use of Wood, by Jani Fullani, 14 pp.
ALBANIAN, per, Ekonomia Popullore, Tirana, Nov-Dec 67, pp. 40-54.
JPRS 45,199

Bulgarian Railroad Network Surveyed, by Toma Barbov, 7 pp.
BULGARIAN, per, Geografiya, Sofia, No. 1, Jan 68, pp. 1-4.
JPRS 45,252

Activities of the International Bank for Economic Cooperation, by Dimitur Bazhdarov, 10 pp.
BULGARIAN, per, Ikonomicheskia Misul, Sofia, No. 10, 1967, pp. 17-25.
JPRS 45,128

The Grain Problem in Bulgaria, by Ivan Ranchev, 15 pp.
BULGARIAN, per, Ikonomicheskia Misul, Sofia, No. 10, 1967, pp. 40-51.
JPRS 45,151

Effect of Demographic Factors on Mass Consumption, by Atnas G. Dimitrev, 12 pp.
BULGARIAN, per, Ikonomicheskia Misul, Sofia, No. 10, 1967, pp. 81-87.
JPRS 45,183

Eastern Europe
Economic (Contd)

International Meeting on New System of Economic Management, by St. Bonev, 10 pp.
BULGARIAN, per, Ikonomicheska Misa, Sofia, No. 10, 1967, pp. 94-99.
JPRS 45,166

Urgent Economic Problems of Cotton Production, by Vulko Topalov, 5 pp.
BULGARIAN, per, Ikonomicheski Zhivot, Sofia, 7 March 68, p. 14.
JPRS 45,315

Tasks of the Bulgarian National Bank in 1968, by Kiril Nestorov, 19 pp.
BULGARIAN, per, Ikonomicheski Zhivot, Sofia, 28 March 68, pp. 1-16.
JPRS 45,235

The Multiple-Factor Remuneration of Labor, by Dimitur Shopov, 11 pp.
BULGARIAN, per, Politicheska Prosveta, Sofia, No. 3, March 68, pp. 38-46.
JPRS 45,345

Financial Law Under the New Economic System, by Milcho Kostov, 16 pp.
BULGARIAN, per, Pravna Misa, Sofia, No. 6, 1967, pp. 56-66.
JPRS 45,140

Decree No. 62 of the Central Committee of the BCP, Council of Ministers, and Central Trade Union Council of 28 December 1967 on Gradual Introduction of the 5-Day Work Week, 5 pp.
BULGARIAN, decree, Sbornik Postanovleniya i Razporezhvaniya na Ministerskiya Suvet na Narodna Republika Bulgaria, Sofia, No. 2, Feb 68, pp. 9-14.
JPRS 45,235

Extracts from Decree No. 63 of the Central Committee of the BCP and the Council of Ministers of 28 Dec 67 on Increasing the Procurement Prices of Some Agricultural Products, 5 pp.
BULGARIAN, decree, Sbornik Postanovleniya i Razporezhvaniya na Ministerskiya Suvet na Narodna Republika Bulgaria, Sofia, No. 2, Feb 68, pp. 14-19.
JPRS 45,235

Eastern Europe
Economic (Contd)

Basic Indexes for the Evaluation of Enterprises, Organization, and Economy Association Work, 5 pp.
BULGARIAN, decree, Sbornik Postanovleniya i Razporezhvaniya na Ministerskiya Suvet na Narodna Republika Bulgaria, Sofia, No. 2, Feb 68, pp. 31-35.
JPRS 45,235

Provisional Directive on Funds of Enterprises Which are Operating Under the New System of Management of the National Economy, 29 pp.
BULGARIAN, directive, Sbornik Postanovleniya i Razporezhvaniya na Ministerskiya Suvet na Narodna Republika Bulgaria, Sofia, No. 2, Feb 67, pp. 40-65.
JPRS 45,235

Regulation on the Formulation, Confirmation, and Amendment of Labor Norms, 6 pp.
BULGARIAN, regulation, Sbornik Postanovleniya i Razporezhvaniya na Ministerskiya Suvet na Narodna Republika Bulgaria, Sofia, No. 2, Feb 67, pp. 67-72.
JPRS 45,235

Directive No. 1 on the Implementation of the Law of Self-Taxation of the Population, 12 pp.
BULGARIAN, directive, Sbornik Postanovleniya i Razporezhvaniya na Ministerskiya Suvet na Narodna Republika Bulgaria, Sofia, No. 2, Feb 68, pp. 73-84.
JPRS 45,235

Changes of Traction and Its Effect on Coal Consumption, by Roslav Hrnecir, 10 pp.
CZECH, per, Planovane Hospodarstvi, No 7-8, 1965, pp 135-140.
DIA LN 583-68

Sound Currency for a Sound Czechoslovak Economy, by Jiri Rumel and Vladimir Nepras, 6 pp.
CZECH, per, Reporter, Prague, No. 13, 27 March-3 April 68, pp. 12-14.
JPRS 45,310

Foreign Trade Planning and the Mechanism of Economic Cooperation, by F. Stransky, 11 pp.
CZECH, per, Zahranicni Obchod, Prague, Feb 68, pp. 7-9.
JPRS 45,418

Eastern Europe
Economic (Contd)

The Railway Vehicle Construction of the German Democratic Republic Displayed at the Leipzig Spring Fair in 1967.
GERMAN, per, Deutsche Eisenbahn Technik, Mar 1967, pp 105-106.
DIA LN 106-68

Diesel Electric Locomotives Built for Brazil.
GERMAN, per, Deutsche Eisenbahn Technik, Mar 1967, pp 107-108.
DIA LN 106-68

German Railroad Technology, No. 3.
GERMAN, per, Deutsche Eisenbahn Technik, Mar 1967, pp 115-119.
DIA LN 106-68

Prospects of Rail Vehicle Industry Outlined, by Karl-Heinz Schulz, 5 pp.
GERMAN, per, Deutsche Eisenbahntechnik, March 68, E. Berlin, pp. 103-105.
JPRS 45,421

Role of Post Office in New Banking System, by Wolfgang Reball, 7 pp.
GERMAN, per, Die Deutsche Post, Leipzig, April 68, pp. 100-102.
JPRS 45,450

Interview With East German Minister Prey on Management and Technology, 13 pp.
GERMAN, per, Einheit, E. Berlin, No. 10, 11, 1967, pp. 1353-1362.
JPRS 45,262

Motor Vehicle Installation Technology on the Dresden-Reichenbach (V) Line.
GERMAN, per, Eisenbahn Praxis, June 1967, pp 203-205.
DIA LN 105-68

The Boreal Forest Land in Finland and Canada Viewed as a Region for Settlement and Economic Development, by E. Ehlers, 41 pp.
GERMAN, per, Geographische Zeitschrift, No 4, Dec 1967, pp 279-318.
DIA LN 504-68

Vehicle-Inspection, Repair-Order and Status Report Forms.
GERMAN/FRENCH, rpt, Inspektionsbericht Preparation Auftrag Zustandsbericht, 19 Mar 1968.
*ACSI J-4978
*FSTC-HT-23-172-68

Eastern Europe
Economic (Contd)

Information on Regulating, Measuring, and Control Technology Industry, 7 pp.
GERMAN, per, IWE Wirtschaftsdienst, Bonn, 7 Feb 68, pp. 5-6, and 14 Feb 68, pp. 4-7.
JPRS 45,322

Survey of Railroad Car Industry, 7 pp.
GERMAN, per, IWE-Wirtschaftsdienst, Bonn, 27 March 68, pp. 3-7 and 3 April 68, pp. 4-7.
JPRS 45,421

Cooperation Association Outlines Development Plans, by Roland Hammermuller et al, 22 pp.
GERMAN, per, Kooperation, Berlin, No. 2, Feb 68, pp. 2-8, 47.
JPRS 45,347

GDR--Swedish Trade Agreement for 1968, 5 pp.
GERMAN, per, Marktinformationen, E. Berlin, 18 March 68, p. 10.
JPRS 45,418

GDR--Danish Trade Agreement for 1968, 18 pp.
GERMAN, per, Marktinformationen, E. Berlin, 18 March 68, pp. 10a-12.
JPRS 45,418

The Economic Importance of Quality Control, by Gunther Pistorius.
GERMAN, per, Materialprüfung, Vol 10, No 1, 1968, pp 5-7.
*ACSI J-4825
*FSTC HT-23-123-68

Property Under Socialist Economic System, by Dr. Harry Nick, 6 pp.
GERMAN, per, Neues Deutschland, E. Berlin, 16 March 68, p. 12.
JPRS 45,443

Foreign Trade Progress, Plans Discussed, 5 pp.
GERMAN, np, Presse-Informationen, E. Berlin, 7 Feb 68, pp. 5-6.
JPRS 45,425

Eastern Europe
Economic (Contd)

Minister Discusses Chemistry's Role in Economy, by G. Wyschofsky, 5 pp.
GERMAN, newspaper, Presse-Informationen, E. Berlin, 8 March 68, pp. 2-3.
JPRS 45,142

Research On Production Growth and Growth Factors, by Gunter Hartig, 21 pp.
GERMAN, per, Statistische Praxis, E. Berlin, March 68, pp. 132-140.
JPRS 45,310

Preparation of 1968 Reports for Industry, Construction, Investment, and Materials Sectors, by Felix Arnold, 7 pp.
GERMAN, per, Die Wirtschaft, E. Berlin, 28 Sept 67, pp. 13-14.
JPRS 44,505 (Errata)

From Planning Bureau to Engineering Enterprise in the Chemical Installations Industry, by H. Naumann and W. Berg, 6 pp.
GERMAN, per, Die Wirtschaft, E. Berlin, 20 March 68, p. 13.
JPRS 45,421

Orientation of GDR Travel Bureau to 1980, by Helmut Heinecke and Herman Hoffmann, 5 pp.
GERMAN, per, Die Wirtschaft, E. Berlin, 27 March 68, Supplement, pp. 10-12.
JPRS 45,448

Basic Research in Economic Reproduction Process, by Wolfgang Ruhle, 16 pp.
GERMAN, per, Wirtschaftswissenschaft, E. Berlin, March 68, pp. 353-366.
JPRS 45,198

Status and Outlook of Interzonal Trade, 10 pp.
GERMAN, per, Wochenbericht, W. Berlin, 18 April 68, pp. 93-96.
JPRS 45,425

Manpower Turnover Problem of Companies, by Pal Kopolnai, 6 pp.
HUNGARIAN, per, Fisvalo, Budapest, 17 April 68, p. 5.
JPRS 45,450

Eastern Europe
Economic (Contd)

The New Hungarian Price System, by Bela Csikos-Nagy, 26 pp.
HUNGARIAN, per, Kozgazdasagi Szemle, Budapest, March 68, pp. 265-284.
JPRS 45,310

New Methods in National Economic Planning, by Akos Balassa, 13 pp.
HUNGARIAN, per, Kozgazdasagi Szemle, March 68, pp. 285-295.
JPRS 45,310

EEC Agricultural Policies and Hungarian Exports, by Jozsef Gulyas and Pal Jakus, 12 pp.
HUNGARIAN, per, Kozgazdasagi Szemle, No. 3, Budapest, March 68, pp. 343-352.
JPRS 45,138

LAV's Recently Acquired Freight Cars (1956-1966), by Fuzessery Bela, 9 pp.
HUNGARIAN, per, Kozlekedesi Kozlony, 29 Oct 1967, pp 762-765.
DIA LN 714-68

Hungarian Chemical Industry Achievements in 1967, by Sandor Balint, 6 pp.
HUNGARIAN, per, Magyar Kemikusok Lapja, No. 3, 1968, pp. 110-112.
JPRS 45,422

Use of Material Incentives, by Dr. Peter Suth, 8 pp.
HUNGARIAN, per, Munka, Budapest, 3 March 68, pp. 5-7.
JPRS 45,397

Fiscal Policy During the Introduction of Economic Reforms, by Peter Valyi, 18 pp.
HUNGARIAN, per, Penzugyi Szemle, Budapest, No. 1, Jan 68, pp. 1-15.
JPRS 45,397

Development of the Construction and Construction Material Industries and Investments in the New Economic Guidance System, 7 pp.
HUNGARIAN, per, Penzugyi Szemle, Hungary, No. 1, Jan 68, pp. 67-72.
JPRS 45,319

Eastern Europe
Economic (Contd)

The Economic Reform and the Budget, by
Dr. Jozsef Bogner, 9 pp.
HUNGARIAN, per, Penzugyi Szemle, Budapest,
No. 2, Feb 68, pp. 89-96.
JPRS 45,166

The State Planning Enterprises, by Erno
Toth, 12 pp.
HUNGARIAN, per, Statistikai Szemle,
Budapest, No. 2, Feb 68, pp. 159-168.
JPRS 45,235

Economic Mechanism and Culture, by Laszlo
Orban, 7 pp.
HUNGARIAN, per, Valosag, No. 1, Budapest,
1968, pp. 106.
JPRS 45,140

A New Type of Car is Added to the Rolling Stock
of MAV--Railroad Crossing Made of Large Pre-
fabricated Units.
HUNGARIAN, per, Vasut, No 11, 1967, pp 5-7.
DIA LN 695-68

The Modernization of the Budapest-Szob Line,
10 pp.
HUNGARIAN, per, Vasut, No 11, 1967, pp 20-23.
DIA LN 695-68

1968 Plan for Local Industry, by J.
Zaremba, 20 pp.
POLISH, per, Investycje i Budownictwo,
Vol. 18, No. 2, Warsaw, 1968, pp. 1-8.
JPRS 45,382

Soil Machine Mechanics.
POLISH, bk, Mechanika ukladu pojazd-teren,
1966, 618 pp.
*CFSTI TT 68-50016

Cooperation in Modern Technology for the
Growth of Socialist Countries, by Miacyelaw
Lass, 12 pp.
POLISH, per, Nowa Drogi, March 68, pp. 21-31.
JPRS 45,323

Appraisal of Present State of the Polish
Power Industry, by Friz. L. Mehrebecki,
11 pp.
POLISH, per, Przeglad Elektrotechniczny,
Gliwice, No. 1, 1968, pp. 8-11.
JPRS 45,319

Eastern Europe
Economic (Contd)

The Rolling Stock of the Polish Railways.
POLISH, per, Przeglad Kolejowy Przewozowy,
No 6, June 1967, pp 28-29.
DIA LN 632-68

Rolling Stock of Polish Railroad.
POLISH, per, Przeglad Kolejowy Przewozowy,
No 7, Jul 1967, pp 26-28.
DIA LN 633-68

Standardized Railway Cars in International
Traffic, by K. Sliwowski, 12 pp.
POLISH, per, Przeglad Kolejowy Mechaniczny,
No 8, 1967, pp 248-251.
DIA LN 636-68

Modernization and Reconstruction of Polish State
Railways.
POLISH, per, Przeglad Kolejowy Mechaniczny,
No 11, 1967, pp 317-321.
DIA LN 645-68

Mechanical Railway Review.
POLISH, per, Przeglad Kolejowy Mechaniczny,
No 11, 1967, pp 317-321.
DIA LN 645-68

Rolling Stock of Polish State Railroads, 5 pp.
POLISH, per, Przeglad Kolejowy Przewozowy,
No 9, pp 28-30.
DIA LN 634-68

Rolling Stock of Polish Railroads.
POLISH, per, Przeglad Kolejowy Przewozowy,
No 11, 1967, pp 25-26.
DIA LN 635-68

Automobile Transport in the Servicing of the
Szczecin Harbor, by Wit Bartosiewicz, 8 pp.
POLISH, per, Przeglad Komunikacyjny, No 12, 1967,
pp 471-474.
DIA LN 693-68

Jaszczuk Comments on Export Tasks, by
B. Jaszczuk, 5 pp.
POLISH, np, Trybuna Ludu, Warsaw, 13 March 68,
p. 6.
JPRS 45,312

Agricultural Bank Role in State Farm Goals, by
Zygmunt Kolodzinski, 9 pp.
POLISH, per, Wiadomosci Narodowego Banku
Polskiego, Warsaw, Feb 68, pp. 43-48.
JPRS 45,207

Eastern Europe
Economic (Contd)

Farm Credits in Poland 1966-1968, by
Tadeusz Wyszomirski, 12 pp.
POLISH, per, Wiadomosci Narodowego Banku
Polskiego, Warsaw, March 68, pp. 81-86.
JPRS 45,381

Reasons for Overtime Work Analyzed, by
A. Gutowski, 7 pp.
POLISH, per, Zagadnienia i Materialy,
No. 4, 16-29 Feb 68, pp. 8-12.
JPRS 45,140

Agricultural Economics Committee Activity,
by Wl. Nowicki, 12 pp.
POLISH, per, Zagadnienia Ekonomiki Rolnej,
Warsaw, Oct- 67, pp. 147-153.
JPRS 45,144

Housing Construction, by G. Popescu-Negreanu,
7 pp.
RUMANIAN, per, Arhitectura, Bucharest,
Jan-Feb 68, pp. 13-14.
JPRS 45,382

The Textile and Readywear Industries in
1968, 6 pp.
RUMANIAN, per, Industria Textila, Bucharest,
Jan 68, pp. 1-4.
JPRS 45,382

Light Industry in 1968, 6 pp.
RUMANIAN, per, Industria Usara, Bucharest,
Jan 68, pp. 9-11.
JPRS 45,313

Preventing Waste of Materials in Light
Industry, by I. Marin, 19 pp.
RUMANIAN, per, Probleme Economice, Bucharest,
Feb 68, pp. 51-63.
JPRS 45,177

The Future Organizational Structure of Industry,
by V. Rotaru, 19 pp.
RUMANIAN, per, Probleme Economice, Bucharest,
Feb 68, pp. 125-133.
JPRS 45,198

Eastern Europe
Economic (Contd)

Rumania's Commercial Relations With Develop-
ing Countries, by Ioan Rusu, 15 pp.
RUMANIAN, per, Probleme Economice, No. 3,
Bucharest, March 68, pp. 37-47.
JPRS 45,312

Present Requirements for Improving Investment
Activities, by Tiberiu Horvath, 19 pp.
RUMANIAN, per, Probleme Economice, Bucharest,
No. 3, March 68, pp. 48-61.
JPRS 45,450

Improvement of the Structure of Machine
Tool Atocks as an Important Means for
Increasing Labor Productivity, by Dr. P.
Vagu, 17 pp.
RUMANIAN, per, Probleme Economice,
Bucharest, March 68, No. 3, pp. 76-88.
JPRS 45,421

Common Market Trade With Socialist Countries,
by A.D. Albu, 9 pp.
RUMANIAN, per, Probleme Economice, Bucharest,
No. 3, March 68, pp. 108-120.
JPRS 45,418

Navigation Arrangements on the Danube, by
M. Marinescu, 11 pp.
RUMANIAN, per, Revista Transportutilor, Vol 14,
No 8, 1967, pp 366-370.
DIA LN 595-68

Petroleum Industry Operates More Efficiently,
by M. Nicolae, 6 pp.
RUMANIAN, np, Scinteia, Bucharest, 26 Feb 68,
pp. 1,3.
JPRS 45,142

The Direction of Activities Needed for
Increasing Profitability in the Mining Industry,
by Victor Girjoaba, 5 pp.
RUMANIAN, np, Scinteia, Bucharest,
1 April 68, pp. 1,3.
JPRS 45,319

Chemical Plants Fail to Realize Design
Parameters, by Nicolae Pintilie, 5 pp.
RUMANIAN, np, Scinteia, Bucharest,
2 April 68, pp. 1,3.
JPRS 45,363

Eastern Europe
Economic (Contd)

Keeping State Standards Up to Modern Technology, by Eng. Al. Cordasevski, 5 pp.
RUMANIAN, per, Standardizarea, Bucharest, No. 2, 1968, pp. 57-59.
JPRS 45,235

The National Power System, by Mihai Nistor, 7 pp.
RUMANIAN, per, Stiinta Si Tehnica, Bucharest, Jan 68, pp. 5-7.
JPRS 45,142

The Status of the Yugoslav Merchant Marine Fleet and of the Inland Waterway Fleet at the End of 1967, by A. Botric, 6 pp.
SERBO-CROATIAN, per, Brodogradnja, Zagreb, No. 1, Jan-Feb 68, pp. 53-55.
JPRS 45,214

The Production Orientation of Yugoslavia and the International Division of Labor, by Dr. Predrag Mihailovic, 18 pp.
SERBO-CROATIAN, per, Ekonomist, Zagreb, No. 1, (Jan-March), 1968, pp. 3-18.
JPRS 45,397

The Problems of the Convertibility of the Dinar, by Ante Cicin-Sain, 25 pp.
SERBO-CROATIAN, per, Ekonomist, Zagreb, No. 1, Jan-March 1968, pp. 79-100.
JPRS 45,418

Monetary-Credit Policy Since the Reform and the Current Assets of Economic Organizations, by Ecija Ljubetic-Sirotkovic, 16 pp.
SERBO-CROATIAN, per, Ekonomist, Zagreb, No. 1, Jan-March 68, pp. 175-186.
JPRS 45,397

The Adjustment of the Basic Law on Agricultural Cooperatives to the Requirements of the Economic Reform, by Bogosav Sekularac, 9 pp.
SERBO-CROATIAN, per, Glasnik Poljoprivrede i Zadrugarstva, Belgrade, No. 2, Feb 68, pp. 20-24.
JPRS 45,259

Integration in the Economy, by Dr. Mirko Dautovic, 11 pp.
SERBO-CROATIAN, per, Jugoslovenski Pregled, Nov-Dec 67, pp. 479-482.
JPRS 45,433

Eastern Europe
Economic (Contd)

Joint Investments by Domestic Enterprises and Cooperation With the Foreign Economy, by Milija Radovanovic, 10 pp.
SERBO-CROATIAN, per, Jugoslovenski Pregled, Belgrade, Nov-Dec 67, pp. 483-486.
JPRS 45,418

Litigations on Economic Matters, by Tiosav Velimirovic, 12 pp.
SERBO-CROATIAN, per, Jugoslovenski Pregled, Belgrade, Nov-Dec 67, pp. 499-502.
JPRS 45,206

Development of the Yugoslav Chemical Industry, by Vasa Jankovic, 6 pp.
SERBO-CROATIAN, per, Kemija u Industriji, No. 3, Zagreb, March 68, pp. 159-161.
JPRS 45,422

Two and A Half Years of Reform in the Economy: Results and Expectations, by B. Nikolajevic, 8 pp.
SERBO-CROATIAN, per, Nova Trgovina, Belgrade, Dec 67, pp. 565-567.
JPRS 45,433

The Law on the Resources of Economic Organizations, 40 pp.
SERBO-CROATIAN, per, Nova Trgovina, Belgrade, Dec 67, pp. 611-618.
JPRS 45,433

The Bases of Policy on Budgetary and General Expenditures of Sociopolitical Communities in 1968 in Serbia, by Dr. Stanoje Aksic, 14 pp.
SERBO-CROATIAN, per, Opstina, Belgrade, No. 3, 1968, pp. 3-18.
JPRS 45,433

Amendments and Supplements to Regulations on Contributions and Taxes of Citizens, by Radomir Mitrovic, 5 pp.
SERBO-CROATIAN, per, Opstina, Belgrade, No. 3, 1968, pp. 64-69.
JPRS 45,433

Eastern Europe
Economic (Contd)

The Progressive Development of Economic Cooperation Between the USSR and Yugoslavia, by Dr. Milan Aleksic, 5 pp.
SERBO-CROATIAN, per, Problemi Spoljne Trgovine i Konjunktura, Belgrade, No. 3, July-Sept. 67, pp. 327-329.
JPRS 45,312

The Exports of Macedonia, by A.V. Ikonovskii, 14 pp.
SERBO-CROATIAN, per, Problemi Spoljne Trgovine i Konjunktura, No. 3, Belgrade, July-Sept. 67, pp. 330-343
JPRS 45,312

The Status and Use of Fixed Assets by Yugoslav Railroads, by Dr. Nijaz Saric, 22 pp.
SERBO-CROATIAN, per, Produktivnost, Belgrade, Feb 68, pp. 96-102.
JPRS 45,313

Employment and the Economic Policy of Yugoslavia, by Dusan Calic, 14 pp.
Serbo-Croatian, per, Produktivnost, Belgrade, March 68, pp. 155-160.
JPRS 45,198

Basic Law on Use of Maritime and Inland Ports -- Revised Text, 12 pp.
SERBO-CROATIAN, per, Sluzbeni List SFRJ, Belgrade, 17 Jan 68, pp. 33-36.
JPRS 45,214

The Development of the Economy and the Position of Railroads, in 1968, by Ante Zmijarevic, 15 pp.
SERBO-CROATIAN, per, Železnice, Belgrade, Jan 68, pp. 15-19.
JPRS 45,252

Measures for the Development of Railroad Transportation, by Ljubomir Jankovic, 9 pp.
SERBO-CROATIAN, per, Železnice, Belgrade, March 68, pp. 37-40.
JPRS 45,382

Water Resources of Bulgaria and Their Complex Utilization, 13 pp.
YUGOSLAV, rpt, Vodnite Resursi Na Bulgariya i Nivnaknoto Kompleksno Ispoluvane, 1966.
DIA LN 665-68

Eastern Europe
Political

Concepts of Modern Revisionists in Regard to the State, by Luan Omari, 8 pp.
ALBANIAN, per, Drejtësia Popullore, Tirana, Nov-Dec 67, pp. 3-9.
JPRS 45,332

The Ideological and Political Content of School Textbooks Should be Improved, by L. Diku, 6 pp.
ALBANIAN, np, Zeri i Rinise, Tirana, 6 March 68, p. 5.
JPRS 45,424

Revolutionary Initiatives of Border Guard Units, by Vangjush Gambata, 5 pp.
ALBANIAN, np, Zeri i Popullit, Tirana, 27 March 68, p. 3.
JPRS 45,432

Shehu Report to 11 April Session, by Mehmet Shehu, 31 pp.
ALBANIAN, np, Zeri i Popullit, Tirana, 12 April 68, pp. 1-6.
JPRS 45,432

Ideological Peaceful Coexistence Criticized, 7 pp.
BULGARIAN, np, Literaturen Front, Sofia, 18 April 68, p. 1.
JPRS 45,428

Neutralizing the Tools of Ideological Subversion, by Nikolay Cholakov, 12 pp.
BULGARIAN, per, Narodna Prosveta, Sofia, No. 3, March 68, pp. 100-108.
JPRS 45,351

The Creative Intelligentsia -- A Loyal Party Detachment, A Fighter for the Triumph of the April 1956 Line, 6 pp.
BULGARIAN, per, Narodna Kultura, Sofia, No. 15, 13 April 68, pp. 1&7.
JPRS 45,428

The Party Organization in a State Economic Union, by Georgi Kalyashki, 16 pp.
BULGARIAN, per, Partien Zhivot, Sofia, March 68, pp. 39-48.
JPRS 45,251

Eastern Europe
Political (Contd)

A Way of Life, Religion, and Rituals,
by Rayna Pesheva, 12 pp.
BULGARIAN, per, Politicheska Prosveta,
Sofia, No. 3, March 68, pp. 66-72.
JPRS 45,360

Bulgarian CP Makes Statement on Unity, 8 pp.
BULGARIAN, per, Politicheska Prosveta,
No. 3, Sofia, March 68, pp. 16-22.
JPRS 45,255

Inexhausted Sources of Socialist Patriotism,
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CZECH, per, Nova Mysl, Prague, Feb 68,
pp. 165-179.
JPRS 45,316

Interview With Marie Svermova, by Anna
Tuckova, 5 pp.
CZECH, per, Reporter, Prague, 20-27 Mar 68,
pp. 5-6.
JPRS 45,351

Czechoslovak Press Censorship As it Was,
5 pp.
CZECH, per, Reporter, Prague, 27 March-
3 April 68, p. 5.
JPRS 45,351

Interview With Mrs. Rudolf Slansky, by
Jiri Cutka, 11 pp.
CZECH, per, Reporter, Prague, 27 March-
3 April 68, pp. 6-9.
JPRS 45,351

Who is to Blame for the Czechoslovak
Purge Trials, by Karel Hajek, 6 pp.
CZECH, per, Reporter, Prague, 27 March-
April 68, pp. 9-10.
JPRS 45,351

Czechoslovak Foreign Policy, by Jiri Hanak,
6 pp.
CZECH, per, Reporter, Prague, 27 March-
3 April 68, pp. 22-23.
JPRS 45,351

Eastern Europe
Political (Contd)

Interview With Slovak Writer Ladislav
Mnacko, 26 pp.
CZECH, per, Reporter, No. 12, Prague, 20-
27 March 68, Supplement, pp. I-VII.
JPRS 45,176

Elections Truly Reflecting the Will of the
Citizens, by Zdenek Krystufek, 8 pp.
CZECH, per, Reporter, Prague, No. 16,
17-24 April 68, pp. 6-8.
JPRS 45,428

Alexander Dubcek's Speech at the Twentieth
Anniversary Celebration in Prague, 23 pp.
CZECH, np, Rude Pravo, Prague, 23 Feb 68,
pp. 1 and 2.
JPRS 45,353

Cernik Speech at Friendship Meeting, by
Oldrich Cernik, 5 pp.
CZECH, np, Rude Pravo, Prague, 26 April 68,
p. 2.
JPRS 45,428

Zhivkov Speech at Friendship Meeting, by
Todor Zhivkov, 6 pp.
CZECH, np, Rude Pravo, 26 April 68,
p. 2.
JPRS 45,428

Amendments to Laws Concerning Bratislava As
Capital of Slovakia, 5 pp.
CZECH, per, Sbirka Zakonu CSSR, Item 29,
Part 10, Prague, 9 March 68, pp. 70-71.
JPRS 45,176

Law on Bratislava as Capital of Slovakia,
9 pp.
CZECH, per, Sbirka Zakonu CSSR, Item 43,
Part 13, Prague, 22 March 68, pp. 109-112.
JPRS 45,176

Head Against the Wall, by Ivan Svitak, 9 pp.
CZECH, np, Student, Prague, 10 April 68,
pp. 1 and 6.
JPRS 45,351

Head Against the Wall (Cont'd.), by Ivan
Svitak, 10 pp.
CZECH, np, Student, Prague, No. 16,
17 April 68, pp. 1 and 6.
JPRS 45,351

Eastern Europe
Political (Contd)

Accumulation of Functions, by Oldrich Fodnacky and Miloslav Hendl, 9 pp.
CZECH, per, Zivot Strany, Prague, No. 5, March 68, pp. 35-38.
JPRS 45,316

On Failure of Revisionist Budapest Conference, by RF, 7 pp.
GERMAN, per, Rote Fahne, No. 95/96, Vienna, April 68, pp. 2, 4-5.
JPRS 45,282

Austrian CP and the Freethinkers' Society, 6 pp.
GERMAN, per, Rote Fahne, No. 95/96, Vienna, April 68, pp. 3-4.
JPRS 45,282

Austrian Communist Interpretation of Developments in Czechoslovakia, by Franz Muhri, 5 pp.
GERMAN, np, Volkstimme, Vienna, 16 April 1968, p. 3.
JPRS 45,430

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GERMAN, per, Weg und Ziel, No. 4, Vienna, April 68, pp. 179-184.
JPRS 45,282

The Basic Concept of the New Program of the German CP, by Max Reimann, 5 pp.
GERMAN, per, Weg und Ziel, No. 4, Vienna, April 68, pp. 202-203.
JPRS 45,282

Marxism and Structuralism, by Franz Marek, 10 pp.
GERMAN, per, Weg und Ziel, No. 4, Vienna, April 68, pp. 206-216.
JPRS 45,282

Communism is Losing its Homogeneity, by Wolfgang Leonhard, 5 pp.
GERMAN, np, Die Zeit, No. 13, Hamburg, 29 March 68, p. 5.
JPRS 45,255

Eastern Europe
Political (Contd)

Polish Documentary Film Studio Criticized, by Jerzy Gren, 9 pp.
POLISH, per, Prawo i Zycie, Warsaw, 24 March 68, p. 8.
JPRS 45,445

Mitrega's Miners' Day Speech, by Jan Mitrega, 9 pp.
POLISH, per, Przeglad Gorniczy, Katowice, No. 1, Jan 68, pp. 1-5.
JPRS 45,180

Scholarly Attack on Schaff, Bauman, by Dr. Tadeusz M. Jaroszewski, 6 pp.
POLISH, np, Trybuna Ludu, Warsaw, 22 March 68, pp. 4,5.
JPRS 45,176

Analysis of Poznan Student Actions in March by Zbigniew Zawada and Zbigniew Zukowski, 5 pp.
POLISH, np, Trybuna Ludu, Warsaw, 16 April 68, p. 3.
JPRS 45,351

Ryszard Strzelecki Speech at Union of Socialist Youth Plenum, 6 pp.
POLISH, np, Trybuna Ludu, Warsaw, 20 April 68, p. 3.
JPRS 45,445

Marxism and Philosophical Views of Kolakowski, by Jaroslaw Ladosz, 17 pp.
POLISH, np, Trybuna Ludu, Warsaw, 13,14,15 Apr 68, pp. 5,9.
JPRS 45,251

A. Zabinski Speech at Union of Socialist Youth Plenum, 9 pp.
POLISH, np, Trybuna Ludu, Warsaw, 20 April 1968, pp. 3,4.
JPRS 45,445

Majkowski Report at Activist Socialist Youth Meeting, 3 pp.
POLISH, np, Zycie Warszawy, Warsaw, 24 April 68, p. 4.
JPRS 45,428

Eastern Europe
Political (Contd)

Ceausescu Speech to Constanta County Aktiv,
by N.Ceausescu, 5 pp.
RUMANIAN, np, Scinteia, Bucharest,
13 Apr 68, p. 3.
JPRS 45,351

Under the Cover of an Intelligence Service,
by Lt. Col. Dr. Milivoje Levkov, 8 pp.
SERBO-CROATIAN, np, Narodna Armija,
Belgrade, 5 April 68, p. 6.
JPRS 45,428

The Misuse of Science by Foreign Intelli-
gence Services, 6 pp.
SERBO-CROATIAN, np, Narodna Armija,
Belgrade, 19 April 68, p. 6.
JPRS 45,351

Assembly Legislative Process Described, by
Milivoje Kovacevic, 16 pp.
SERBO-CROATIAN, per, Jugoslovenski Pregled,
Belgrade, Nov-Dec 67, pp. 445-448.
JPRS 45,201

The Socialist Alliance Discussed, by Radovan
Knezevic, 18 pp.
SERBO-CROATIAN, per, Jugoslovenski Pregled,
Belgrade, Nov-Dec 67, pp. 473-478.
JPRS 45,201

Two Approaches to the Problem of an Election
System, by Dmtar Mircev, 13 pp.
SERBO-CROATIAN, per, Pregled, Sarajevo,
March 68, pp. 241-252.
JPRS 45,445

Republic Legislation on Funds for Education
and Training, by Rodoljub Jenuovic, 13 pp.
SERBO-CROATIAN, per, Radna i Društvena
Zaštednica, Belgrade, Dec 67, pp. 585-595.
JPRS 45,183

Changes in the Organization of the Federal
Administration, by P. Stamatovic, 17 pp.
SERBO-CROATIAN, per, Radna i Društvena
Zaštednica, Belgrade, Dec 67, pp. 604-611.
JPRS 45,259

Eastern Europe
Political (Contd)

Slovak Reassessment of Milan Stefanik,
by Hana Ponicka, 8 pp.
SLOVAK, np, Kulturny Zivot, No. 12,
Bratislava, 22 Mar 68, p. 6.
JPRS 45,251

Czechoslovak "Old Communists" View January
Events as Reactionary Putsch, 13 pp.
SLOVAK, np, Kulturny Zivot, Bratislava,
22 Mar 68, pp. 2,11.
JPRS 45,251

Military

An Instrument for Target Designation at
the Lateral COP, by Lt. Col. S. Savov,
8 pp.
BULGARIAN, per, Armeyski Pregled,
Sofia, No. 3, March 68, pp. 70-73.
JPRS 45,352

Relationship Between the Army and the Social-
ist Society, by Maj. Gen. E. Pepich, 8 pp.
CZECH, np, Rude Pravo, Prague, 8 March 68,
p. 3.
JPRS 45,149

Proclamation on Inspection of Weapons and
Approval of Ammunition for Civilian Use,
9 pp.
CZECH, per, Sbirka Zakonu CSSR, Item 33,
Part 10, Prague, 9 March 68, pp. 82-85.
JPRS 45,257

Missilemen of the Guard by Berchert.
GERMAN, per, Armee Rundschau, No 12, 1967.
*ACSI J-4796
*FSTC HT-23-48-68

Military Training and National Defense Eval-
uated, by Werner Hubner and Willi Effenberger,
13 pp.
GERMAN, per, Einheit, E. Berlin, March 68,
pp. 354-363.
JPRS 45,149

Eastern Europe
Military (Contd)

Why Not Lighter and Cheaper Battle Tanks, by
Hans-Joachim Jung.
GERMAN, per, Kampftuppen, No 6, 1967, p 174.
*ACSI J-4881
*FSTC-HT-23-150-68

The Significance of Armored Recovery Vehicles
Within the System of Armored Combat Readiness,
by R. Zimmermann.
GERMAN, per, Militartechnik, No 10, 1967,
pp 446-448.
*ACSI J-4882
*FSTC-HT-23-148-68

Personnel Carriers of the Czechoslovak Peoples
Army, by R. Hunzar.
GERMAN, per, Militartechnik, No 11, 1967,
pp 518-519.
*ACSI J-4961
*FSTC-HT-23-183-68

The Army Technical School, by Friedrich Schorgi.
GERMAN, per, Truppendienst, No 3, 1966, pp 228-
230.
*ACSI J-4878
FSTC-HT-23-145-68

Battle Tank 70 - A Joint German-American Develop-
ment.
GERMAN, per, Wehr und Wirtschaft, Vol 11, No 11,
pp 574-575.
*ACSI J-4883
*FSTC-HT-23-149-68

Defense Minister Lajos Czinege's Parlia-
mentary Speech on Military and Civil
Defense Policies, by Gen. Lajos Czinege,
9 pp.
HUNGARIAN, per, Folgar Vedelem, Budapest,
30 March 68, Supplement, pp. 1-4.
JPRS 45,352

Important Tasks Confronting Civil Defense,
by Dr. Janos Sajnovics, 13 pp.
HUNGARIAN, per, Folgar Vedelem, Budapest,
30 March 68, pp. 3-8.
JPRS 45,352

Selections from Ground Forces Review (Poland),
201 pp.
POLISH, per, Przeglad Wojsk Ladowych, No 3,
Mar 1967, pp 1-131, 253-259.
DIA L 161-68

Eastern Europe
Military (Contd)

Underground Armories, by M. Sienaki.
POLISH, per, Zolniers Polski, No 10 (1031),
10 Mar 1968, pp 4-5-6.
*ACSI J-4848
*FSTC HT-23-135-68

Coordinantes of the Military Character, 9 pp.
RUMANIAN, per, Viata Militara, Oct 1967, pp 14-15.
DIA L 663-68

Amphibious Tanks, by S. Korda.
SERBO-CROATIAN, per, Vol 22, No 1474, 3 Nov
1967, p 2.
*ACSI J-4836
*FSTC HT-23-110-68

Security in War Preparations, by Maj.Gen.
Stjepan Domankusic, 17 pp.
SERBO-CROATIAN, per, Voljno Delo, Belgrade,
No. 1, Jan-Feb 68, pp. 18-30.
JPRS 45,308

Programmed Cybernetics in War Games, 15 pp.
SERBO-CROATIAN, per, Voljno Delo, Belgrade,
No. 1, Jan-Feb 68, pp. 31-43.
JPRS 45,308

National Defense Under Current Self-Management
Conditions, by Maj.Gen. Aleksandar
Jovanovic, 20 pp.
SERBO-CROATIAN, per, Voljno Delo, Belgrade,
No. 1, Jan-Feb 68, pp. 44-59.
JPRS 45,308

Modern Armament Effect on Wartime Medical
Service, by Col. Vladimir Mikulic, 14 pp.
SERBO-CROATIAN, per, Voljno Delo, Belgrade,
No. 1, Jan-Feb 68, pp. 60-70.
JPRS 45,308

Geographic

A Topographic Map of the Territory of the
Obodrio.
CZECH, bk, Topograficka Ceskoslovenske Akademie
ved, 1965, pp 7-11.
DIA L 593-68

Eastern Europe
Sociological (Contd)

Involving the Masses in the Detection, Investigation and Prevention of Crimes, by Skender Begeja, 12 pp.
ALBANIAN, per, Drejtësia Popullore, Tirana, Nov-Dec 67, pp. 10-19.
JPRS 45,332

Improving the Technical and Professional Training of Every Worker in the Field of Law, by Iro Ylli, 5 pp.
ALBANIAN, per, Drejtësia Popullore, Tirana, Nov-Dec 67, pp. 38-41.
JPRS 45,332

Plans for Electrification of Villages, 5 pp.
ALBANIAN, per, Rruga e Partise, Tirana, Feb 68, pp. 3-7.
JPRS 45,199

United Effort to Counteract the Effects of the Earthquake in Diber and Librazhd Rreths, by Stefi Kotmilo, 7 pp.
ALBANIAN, per, Rruga e Partise, Tirana, Jan 68, pp. 33-38.
JPRS 45,199

The Role of the Schools in the Technical-Scientific Revolution, by Bajram Khaja, 5 pp.
ALBANIAN, per, Rruga e Partise, Tirana, Jan 68, pp. 87-91.
JPRS 45,199

A Resolution on Raising the Educational and Cultural Level of Women as a Necessary Condition for Their Complete Emancipation, 5 pp.
ALBANIAN, per, Shendetesia Popullore, Tirana, Oct-Nov-Dec 67, pp. 8-11.
JPRS 45,332

Shortcomings of Literature for Children, by Dhurata Xoxa, 5 pp.
ALBANIAN, np, Zeri i Rinise, Tirana, 16 March 68, p. 3.
JPRS 45,424

On the Further Revolutionizing of Schools, by Thoma Deljana, 5 pp.
ALBANIAN, np, Zeri i Popullit, Tirana, 20 March 68, p. 2.
JPRS 45,432

Eastern Europe
Sociological

Hygiene Problems of Bulgarian Urbanization, by Em. Efremov, 10 pp.
BULGARIAN, per, Khigiena i Zdraveopazvane, Sofia, Jan-Feb 68, pp. 1-8.
JPRS 45,253

Admission of Students to Universities in 1968/1969, 22 pp.
BULGARIAN, np, Narodna Mladezh, Sofia, 6 and 7 April 68, pp. 4 and 2.
JPRS 45,448

Training Problems in Chemical and Metallurgical Industries, by Marin Karadshov, 13 pp.
BULGARIAN, per, Trud i Tseni, Sofia, No. 9, 1967, pp. 3-11.
JPRS 45,363

Establishment of Central Population Register, by Vladimir Srb, 7 pp.
CZECH, per, Demografie, Prague, Feb 68, pp. 7-11.
JPRS 45,206

Future of Scientific-Technical Revolution, by B. Simon, 11 pp.
CZECH, per, Nova Mysl, No. 3, Prague, March 68, pp. 287-295.
JPRS 45,208

Subject Index of Regulations Published in Sbirka Zakonu CSSR During 1967, 85 pp.
CZECH, index, Sbirka Zakonu Ceskoslovenske Socialisticke Republiky, Vol. 1967, Prague, Part 1-48, pp. 1-31.
JPRS 45,378

Decree on General Social Welfare Assistance, 11 pp.
GERMAN, journal, Gesetzblatt der Deutschen Demokratischen Republik, E. Berlin, 1 April 68, pp. 167-171.
JPRS 45,360

Present Status and Development Questions of Technological Training At College-Level Technical Schools, by Tibor Marton, 12 pp.
HUNGARIAN, journal, Csegyvartas Technologia, Budapest, No. 3, 1968, pp. 101-104.
JPRS 45,172

Eastern Europe
Sociological (Contd)

Professor Criticizes Sociological Book by Bauman, by Dr. Jozef Chalacinski, 8 pp.
POLISH, np, Trybuna Ludu, Warsaw, 24 March 68, pp. 3,4.
JPRS 45,253

New Rumanian Patent Legislation, by Tataru M. Augustin, 7 pp.
RUMANIAN, per, Inventii si Inovatii, Bucharest, Feb 68, pp. 41-44.
JPRS 45,345

Life in the Gaesti Juvenile Detention Home, by Mihai Hetco, 6 pp.
RUMANIAN, per, Flacara, Bucharest, 23 March 68, pp. 8-9.
JPRS 45,253

Social Surveys of General Interest, by V. Bugariu, 7 pp.
RUMANIAN, per, Presa Noastra, Bucharest, Feb 68, pp. 16-18.
JPRS 45,206

Admissions, Dues and Records of the UTC, 6 pp.
RUMANIAN, per, Tinarul Leninist, Bucharest, March 68, pp. 51-61.
JPRS 45,253

The Reform and the Village, by Milos Minic, 9 pp.
SERBO-CROATIAN, per, Glasnik Poljoprivrede i Zadrugarstva, No. 2, Feb 68, pp. 3-9.
JPRS 45,259

The Ukrainian Pedagogical Scientific Research Institute, by Nikola Potkonjak, 10 pp.
SERBO-CROATIAN, per, Pedagogika, Belgrade, No. 4, Oct-Dec. 67, pp. 551-556.
JPRS 45,328

The Creativity of Soviet Pedagogical Theory and Practice, by France Strmonik, 11 pp.
SERBO-CROATIAN, per, Pedagogika, Belgrade, No. 4, Oct-Dec 67, pp. 557-563.
JPRS 45,328

Eastern Europe
Sociological (Contd)

The Cooperation and Partnership of Opstinas on Self-Managing Foundations, by Miodrag Kragovic, 11 pp.
SERBO-CROATIAN, per, Radna i Drustvena Zajednica, Belgrade, Dec 67, pp. 596-603.
JPRS 45,259

The Basic Law on Housing Cooperatives -- Revised Text, 30 pp.
SERBO-CROATIAN, per, Sluzbeni List SFRJ, Belgrade, 10 Jan 68, pp. 1,10.
JPRS 45,317

Biographic

Biographies: Lt. Col. Frantisek Navratil; Major Stefan Cambal; Lt. Col. Karol Capliar; Major Pavel Zapletal; Lt. Col. Vaclav Valenta; Col. Eng. Jan Jedlicka; Col. Eng. Ladislav Kovac; Col. Jozef Huna; Major Jan Lebeda; Col. Docent Karel Markovicka MD CSC; Major Gen. Alois Gros, 12 pp.
CZECH, per, Lidova Armada Revue, No 1, 1968, pp 94-95; 66; 73.
DIA LN 629-68

WESTERN EUROPE

Economic

Technical Specifications: No 1988, No 2023A, No 2059, No 1996, 65 pp.
FRENCH, rpt. No 1988, 24 pp. No 2023A, 11 pp; No 2059, 20 pp; No 1996, 17 pp.
ACSI J-4599
ID 2204013268

Great French Cities, Strasbourg, 80 pp.
FRENCH, per, Notes de Etudes Documentaires, No 2953, May 1963, pp 5-44.
DIA LN 608-68

Great French Cities, Nantes and Saint-Nazaire, 77 pp.
FRENCH, per, Notes and Documentary Studies, No 3362, Feb 1967, pp 2-45.
DIA LN 591-68

Western Europe
Economic (Contd)

The French Commercial Fleet and Naval Construction, 37 pp.
FRENCH, per, La Revue Maritime, No 249, Dec 1967, pp 1462-1492.
DIA LN 655-68

New First Class Passenger Cars.
NORWEGIAN, per, NSB Tekniske Meddelelser, No 4, Dec 1967, pp 108-116.
DIA LN 703-68

How Far Have We Come - Progress Towards Efficiency in the Norwegian State Railways and in Future Plans, 23 pp.
NORWEGIAN, per, Vart Yrke, No 4-5, 1967, pp 74-83.
DIA LN 616-68

Evolution of Techniques for the Bottling of Nutritious Liquids in Spain, (Speech at the International Congress of Bottling), by L. S. Camet, 21 pp.
SPANISH, rpt, IDE (Informacion de Envas), Embalaje y Artes Graficas Aplicadas, No 101, Jan 1968, pp 14-18, 20-21.
ACSI J-4407
ID 2204007068

A Train Ferry in the Baltic, by I. E. Ljunggren, 18 pp.
SWEDISH, per, Jarnvags Teknik, No 2, 1967, pp 49-57.
DIA LN 44-68

Do We Need More Canals in Sweden, by Gustav Jutelius, 6 pp.
SWEDISH, rpt, Teknisk Tidskrift med ny teknik, 25 Jan 1968, pp 14-17.
DIA LN 610-68

Political

Debate: Cooperation Among Workers' Parties, 20 pp.
DANISH, np, Land og Folk, Copenhagen, 12 March 68, p. 2; 22 March 68, p. 11; 28 March 68, p. 2; 3 April 68, p. 2; 5 April 68, pp. 9 and 10; and 6 April 68, p. 2.
JPRS 45,282

Western Europe
Political (Contd)

Italian CP (M.L.) Discusses Elections, 5 pp.
ITALIAN, np, Nuova Unità, No. 14, Rome, 6 April 68, p. 1.
JPRS 45,255

Finnish Communist Leader Appeals for Unity in the Party, by Erkki Salomaa, 5 pp.
FINNISH, np, Kansan Uutiset, Helsinki, 1 April 68, pp. 1,2.
JPRS 45,255

Chairman of FINNISH CP Discusses Split in Party, by Aarne Saarinen, 7 pp.
FINNISH, newspaper, Kansan Uutiset, Helsinki, 9 April 68, and 10 April 68, p. 4.
JPRS 45,430

Marxism and Violence, by Oiva Bjorkbacka, 7 pp.
FINNISH, per, Kommunisti, No. 11, Helsinki, 1967, pp. 438-441.
JPRS 45,282

Analysis of Finnish CP Draft Program, by Toivo Niiranen, 5 pp.
FINNISH, per, Kommunisti, No. 11, Helsinki, 1967, pp. 449-451.
JPRS 45,282

FCP Draft Program Discussed, by Risto Alonen, 5 pp.
FINNISH, per, Kommunisti, No. 2, Helsinki, 1968, pp. 102-104.
JPRS 45,255

Michele Mestre Reports on Preparation for Revolutionary War in Europe, by Michele Mestre, 5 pp.
FRENCH, np, Le Communiste, No. 140, Paris, March 68, pp. 3,6.
JPRS 45,255

Communists and Christians, by Antoine Casanova, 6 pp.
FRENCH, np, L'Humanite, Paris, 12-13 April 1968, p. 5.
JPRS 45,430

Western Europe
Political (Contd)

French CP Delegates Visit Moroccan CP,
by Andre Stil, 6 pp.
FRENCH, np, L'Humanite, Paris, 15 April 68,
p. 2; and 16 April 68, p. 2.
JPRS 45,430

French Contribution to Marxist Theory,
by Lucien Seve, 20 pp.
FRENCH, per, La Nouvelle Critique, No. 13,
Paris, April 68, pp. 39-46.
JPRS 45,430

Reunionese CP Exhorts Party Unity, 13 pp.
FRENCH, daily, Temoignages, Saint Denis,
2 April 68, p. 1; 4 April 68, p. 1-2; 5 April
68, pp. 1-2; 9 April 68, p. 2; 10 April 68,
p. 2; 11 April 68, p. 2.
JPRS 45,430

Comment on the French CP and Unity of the
Left, 5 pp.
FRENCH, bulletin, Unir Pour le Socialisme,
No. 15, Paris, 10 March 68, pp. 2 and 3.
JPRS 45,430

Attacks Upon Belgian Marxist-Leninist
Communist Party Intensified, 11 pp.
FRENCH, np, La Voix du Peuple, No. 13,
Brussels, 29 March 68, pp. 6 and 7.
JPRS 45,255

Program of the Norwegian Communist Party,
by Reider T. Larsen, 36 pp.
NORWEGIAN, per, Friheten, Oslo, 29 March-
3 April 68, supplement, pp. 2-15.
JPRS 45,255

NATO - An Editorial; A Greeting from the Minister
of Defense; Defense and NATO; What Is NATO; What
Now NATO; NATO in the Past and In the Future;
NATO and Future Prospects; The Thought Behind
NATO; NATO Over 18 Years, 40 pp.
NORWEGIAN, per, Norges Forsvar, No 10, 1 Oct 1967,
pp 225-251.
DIA LN 494-68

Danish Foreign Policy After the Election.
SWEDISH, per, Fremtiden, No 1, 1968, pp 2-6.
DIA LN 724-68

The United Nations in 1967, by W. J. Raagerup
& Hans Tabor, 14 pp.
SWEDISH, per, Fremtiden, No 1, 1968, pp 27-34.
DIA LN 724-68

Western Europe
Military

The Allied Unit (Unified Command), 7 pp.
DANISH, per, Forsvarsbroderen, No 9, Nov-Dec
1967, pp 24-27.
DIA LN 657-68

Artillery Against Tanks, by K. P. Bloema.
DUTCH, per, De Militaire Spectator, Vol 137,
No 1, 1968, pp 18-22.
*ACSI J-4918
*FSTC-HT-23-45-68

Airborne Units in Foreign Armies, by Capt Chaix.
FRENCH, per, L'armee, No 73, 1967, pp 54-61.
*ACSI J-4974
*FSTC-HT-23-184-68

Ability of the Navy to Maintain Its Position
in the National Strategy in the Present State of
Its Capabilities, 29 pp.
FRENCH, per, La Revue Maritime, No 251, pp 148-169.
DIA LN 656-68

A Look Across the Borders: Sweden Developed
World's Most Modern Tank - the "S" Tank Swims
Like a Fish and Creeps Like a Mole.
GERMAN, per, Der Schweizer Soldat, No 8, 1967,
p 186.
*ACSI J-4877
*FSTC-HT-23-152-68

The Organization of the Royal Dutch Navy, by
F. C. van Oosten, 19 pp.
GERMAN, per, Truppenpraxis, No 11, Nov 1967,
pp 868-872.
DIA LN 364-68

Training/Material Procurement, a Problem of
Balancing, by Leif Kasselmark.
SWEDISH, per, Arne Nytt, No 4, 1967, pp 6-7.
*ACSI J-4828
*FSTC HT-23-125-68

Brigade Modernization, by ULF Brostrom.
SWEDISH, per, Arne Nytt, No 4, 1967, pp 14-15.
*ACSI J-4825
*FSTC HT-23-139-68

AFRICA

Economic

The Benguela Railroad - An African Life Line, 5 pp.
DANISH, per, Dansk Lokomotive Tidende, No 11, 10 Nov 1967, pp 6-8.
DIA Ltr 701-68

A Report on Franco-Gabonese Trade, 5 pp.
FRENCH, per, Afrique Express, Brussels, 10 March 68, pp. 22-24.
JPRS 45,145

The Dahomean Budget for 1968, 5 pp.
FRENCH, per, Bulletin de l'Afrique Noire, Paris, 13 March 68, pp. 10092-10094.
JPRS 45,283

President Inaugurates Cement Plant, 10 pp.
FRENCH, per, Bulletin Quotidien de l'ACI, Brazzaville, 27 March 68, pp. 1-12.
JPRS 45,300

Priority for Interim Emergency Five-Year Plan, 9 pp.
FRENCH, per, Carrefour d'Afrique, Kigali, Feb 68, pp. 6-9.
JPRS 45,300

Resolution of GAO Economic Conference, 8 pp.
FRENCH, per, L'Essor, Bamako, 8 March 68, p. 4.
JPRS 45,145

Cultural Milieu and Economic Development in Sub-Saharan Africa, by Pierre Bungener, 29 pp.
FRENCH, per, Geneve-Afrique, Geneva, 1967, pp. 224-253.
JPRS 45,307

Economy Said to Be in Transitional Phase, 6 pp.
FRENCH, np, Le Moniteur Africain, Dakar, 21 Dec 67, pp. 6-8.
JPRS 45,307

Cameroon President Inaugurates Factories and Power Plant, 5 pp.
FRENCH, np, Le Moniteur Africain, Dakar, 22 Feb 68, pp. 3.
JPRS 45,145

Africa
Economic (Contd)

Survey of Iron Industry in Africa, 6 pp.
FRENCH, np, Le Moniteur Africain, Dakar, 21 March 68, pp. 7-8.
JPRS 45,167

Critical Economic Situation in Togo, 5 pp.
FRENCH, np, Le Moniteur Africain, Dakar, 21 March 68, pp. 6, 11.
JPRS 45,413

Arzew: In the Forefront in Industrial Techniques, by Kamel Belkacem, 5 pp.
FRENCH, np, El Moudjahid, Algiers, 8 Feb 68, pp. 1,3.
JPRS 45,283

The Annaba Steel Mill Complex, 25 pp.
FRENCH, np, An Nasr, Constantine, 12 March 68, pp. 1,7; 13 March 68, pp. 1,3; 14 March 68, pp. 1,7; 15 March 68, p. 3; 19 March 68, p. 3.
JPRS 45,283

European Economic Community Aid to Africa, by Emile Lejeune, 18 pp.
FRENCH, per, Remarques Afriques, Brussels, 21 March 68, pp. 143-150.
JPRS 45,167

The Economy of Niger, by U. Hinkmann, 7 pp.
GERMAN, per, Afrika Heute, Bonn, 1 April 68, pp. 86-88.
JPRS 45,413

Socialization Believed Solution to Sudan's Socio-Economic Problems, by Dr. Heiner Winkler, 5 pp.
GERMAN, per, Die Wirtschaft, E. Berlin, 7 Feb 68, pp. 18-19; 14 Feb 68, pp. 30-31.
JPRS 45,145

Africa
Political

The Draft of Dahomey's New Constitution, 22 pp.
FRENCH, per, L'Action Populaire, Cotoncu, 22 March 68, pp. 1-10; 23 March 68, pp 1-7.
JPRS 45,145

Meeting Held to Commemorate Third Anniversary of Congo (Brazzaville) Women's Organization, 8 pp.
FRENCH, per, Bulletin Quotidien de l'ACI, Brazzaville, 11 March 68, pp. 1-8.
JPRS 45,167

The Development of the Malian Revolution, 5 pp.
FRENCH, np, L'Essor Hebdomadaire, Bamako, 11 March 68, pp. 1,4.
JPRS 45,167

Infantile Disorders in Mali, 7 pp.
FRENCH, np, L'Essor Hebdomadaire, Bamako, 1 April 68, pp. 3,6,8.
JPRS 45,300

Beneficent Effects of Colonialism, by Robert Cornevin, 6 pp.
FRENCH, per, France-Eurafrigue, Paris, Jan 68, pp. 42-44.
JPRS 45,145

Speech by President Sekou Toure to Guinean Youth Congress, by Sekou Toure, 20 pp.
FRENCH, np, Horoya, Conakry, 17 and 18 March 68, pp. 1-5.
JPRS 45,283

Activity and Program of the Youth Movement, by Secretary Gen. Idrissa Traore, 27 pp.
FRENCH, np, Horoya, Conakry, 14 March 68, pp. 1,2; 15 March, pp. 2,3; 17-18 March, p. 6, 19 March, p. 3; 23 March, p. 3; 26 March, p. 3; 27 March, p. 3; 28 March, p. 3; 29 March, p. 3.
JPRS 45,300

Sekou Toure's View of Organisation of Senegal River States, 6 pp.
FRENCH, np, Horoya, Conakry, 24-25 March 68, pp. 1-4.
JPRS 45,413

Africa
Political (Contd)

Sekou Toure Advocates Merger of Guinea and Mali, by Sekou Toure, 5 pp.
FRENCH, np, Horoya, Conakry, 2 April 68, pp. 1-3.
JPRS 45,283

Chadian National Day of Protest Described, by J.C. Gamapou, 7 pp.
FRENCH, per, Info Chad, Fort-Lamy, 8 March 68, pp. 1-7.
JPRS 45,145

Communist Plans and Intentions in Africa, 6 pp.
FRENCH, journal, Le Journal APAN, Abidjan, 15-29 Feb 68, pp. 1,2 and 1-15 March 68, pp. 1,2.
JPRS 45,167

The Development of Nationhood in Niger, by Boubou Hama, 5 pp.
FRENCH, interview, Le Niger, Niamey, 25 March 68, pp. 5,8.
JPRS 45,145

Massamba-Debat's Concept of Scientific Socialism Discussed, by Albert Godefroid N'Gbanzo, 8 pp.
FRENCH, np, La Tribune Africaine, Kinshasa, 27 Jan 68, p. 7; 28-29 Jan 68, p. 2; 1 Feb 68, pp. 4,6.
JPRS 45,283

Cameroon President Accused of Collusion With Imperialists and Soviet Revisionists, by Robert Ekwalla, 22 pp.
FRENCH, np, La Voix du Peuple, Brussels, 15 March 68, pp. 14-15; 29 March 68, p. 15; 5 April 68, p. 16.
JPRS 45,283

Sociological

Views on Primary Education Reform in Congo (Kinshasa), by G. Mukoko, 10 pp.
FRENCH, np, Le Courrier d'Afrique, 19 Feb 68, pp. 1,3; 23 Feb 68, pp. 1,3; 24-25 Feb 68, pp. 1-5.
JPRS 45,145

Africa
Sociological (Contd)

Malian View of Racial Discrimination, 7 pp.
FRENCH, np, L'Essor Hebdomadaire, Bamako,
25 March 68, pp. 1,2.
JPRS 45,167

Abidjan University After Four Years of
Progress, by Reynaud Paulian, 25 pp.
FRENCH, np, Fraternite, Abidjan, 16 Feb 68,
pp. 3, 6-8; 23 Feb 68, pp. 4-5, 8-9.
JPRS 45,145

Algeria According to the Figures, 9 pp.
FRENCH, np, El Moudjahid, Algiers,
4 April 68, pp. 1 and 4; 5 April 68,
pp. 1 and 3; 6 April 68, p. 3.
JPRS 45,413

Social-Cultural Obstacles to African
Development, by Philippe Hugon, 13 pp.
FRENCH, per, Revue Tiers Monde, Paris,
July-Sept 67, pp. 699-709.
JPRS 45,145

The Women's Rural Development Organization,
6 pp.
FRENCH, np, La Semaine, Brazzaville,
14 April 68, p. 8.
JPRS 45,283

The Traditional Sector and Rural Development
in Mauritania, by Jacques Cherel, 52 pp.
FRENCH, per, Tiers Monde, Paris, Jul-Sept 67,
pp. 631-677.
JPRS 45,453

Problems of Maniema District, Kivu Province,
5 pp.
FRENCH, np, La Tribune Africaine, Kinshasa,
7 March 68, pp. 5-6.
JPRS 45,300

MIDDLE EAST

Political

Le Monde Correspondent Interviews Kolig-
iannis, by Michel Tatu, 5 pp.
FRENCH, newspaper, Le Monde, Paris, 13 April
1968, p. 5.
JPRS 45,266

Middle East
Military

Anatomy of the Military Government in
Occupied Areas, by the Military Governor,
8 pp.
HEBREW, np, Bamahaneh, Tel Aviv,
5 March 68, pp. 12-13.
JPRS 45,266

West Bank Survey Trip With General Markiss,
by Dr. David Lazar, 5 pp.
HEBREW, np, Bamahaneh, Tel Aviv, 5 March 68,
pp. 14-15.
JPRS 45,266

Military Policies in Occupied Areas, 8 pp.
HEBREW, np, Bamahaneh, Tel Aviv,
12 March 68, pp. 6-7, 16-17.
JPRS 45,379

Interview With Hefetz Concerning the Defense
Budget, by Benjamin Landau, 7 pp.
HEBREW, np, Bamahaneh, Tel Aviv, 2 Apr 68,
pp. 10-11.
JPRS 45,379

Law 54/1967 -- Establishment of the Nasir
High Military Academy, 5 pp.
ARABIC, per, Al-Jaridah al-Rasmiyya, Cairo,
7 Dec 67, pp. 664-667.
JPRS 45,220

Sociological

Innovations in Clothes and Food in the IDF,
6 pp.
HEBREW, np, Bamahaneh, Tel Aviv, 12 March 68,
pp. 17-18.
JPRS 45,379

Problems at Mechanical Training Center,
by Yusuf Sabri and Samir 'Issat, 12pp.
ARABIC, per, Rose al-Yusuf, Cairo, 26 Feb 68,
pp. 26-29.
JPRS 45,379

FAR EAST

Economic

Outstanding Production Achievements of Overseas Chinese, 5 pp.
CHINESE, np, Bao Tan Viet Hoa, Hanoi, 27 March 68, p. 1.
JPRS 45,205

Analysis of Current Market Conditions on the Mainland, by Kuan Shan-yuan, 9 pp.
CHINESE, per, Fei-ching Yen-chiu, Taipei, Vol. 2, No. 2, 29 Feb 68, pp. 27-32.
JPRS 45,417

Red Chinese Petroleum Industry Described, by HO K'o-jen, 18 pp.
CHINESE, per, Fei-ch'ing Yueh-pao, Taipei, 1 March 68, pp. 52-65.
JPRS 45,194

Cultural Revolution Affects Communist Chinese Industries, by Chi I-chai, 20 pp.
CHINESE, per, Fei-ch'ing Yueh-pao, Taipei, 1 March 68, pp. 78-87.
JPRS 45,417

Agricultural Development in Southeast Asia.
JAPANESE, bk, Agricultural Development in Southeast Asia, pp 1-249.
ACSI J-4464
ID Incl to 2253033567

Electricity Production and Saving Urged, 5 pp.
KOREAN, np, Minju Choson, P'yongyang, 10 March 68, p. 2.
JPRS 45,408

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VIETNAMESE, np, Nhan-dan, Hanoi, 11 March 68, p. 2.
JPRS 45,256

Gold Crisis Devalues Dollar, 5 pp.
VIETNAMESE, np, Nhan-dan, Hanoi, 27 March 1968, p. 4.
JPRS 45,288

Far East
Economic (Contd)

Great Achievements in Three Years of Economic Building and Development, by Xuan Trinh, 10 pp.
VIETNAMESE, per, Tuyen Huan, Hanoi, No. 3, March 68, pp. 18-23.
JPRS 45,298

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Arguing With Intellectual Youth About Irrational Rebellion, by Hung Ping, 5 pp.
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JPRS 45,417

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CHINESE, per Fei-ch'ing Yen-chiu, Taipei, March 68, Vol. 2, No. 3, pp. 89-92.
JPRS 45,281

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CHINESE, np, Hung-ch'i P'iao-p'iao, Canton, Jan 67, pp. 2 and 3.
JPRS 45,194

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CHINESE, np, Kang Pa-i Chan-pao and Chung-chiao Hung-ch'i, Jan 68, p. 1.
JPRS 45,194

Chairman Mao Waves, 1 March, 5 pp.
CHINESE, per, Wen-ko P'ing-lun, Jan 68. Canton, Canton Iron and Steel Red United Committee.
JPRS 45,417

North Vietnamese Train in MIG-21 Aircraft Near Moscow, by Max Leon, 6 pp.
FRENCH, np, L'Humanite, Paris, 26 March 68, p. 3.
JPRS 45,233

Far East
Political (Contd)

Etienne Fajon Describes Trip by French Communists to North Vietnam, by E. Fajon, 11 pp.
FRENCH, per, Humanite Dimanche, Paris, 24 March 68, pp. 23-25.
JPRS 45,233

Pilots in Pajamas, by Heynowski and Scheumann, 39 pp.
GERMAN, per, Forum, E. Berlin, April 68, pp. 19-27.
JPRS 45,254

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KOREAN, per, Kulloja, P'yongyang, 30 Jan 68, pp. 2-15.
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KOREAN, per, Kulloja, P'yongyang, 30 Jan 68, pp. 16-24.
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KOREAN, per, Kulloja, P'yongyang, Jan 68, pp. 25-37.
JPRS 45,204

The Revolutionization of the Peasants and Their Transformation Into the Working Class, by Yi Chung-p'il, 18 pp.
KOREAN, per, Kulloja, P'yongyang, 30 Jan 68, pp. 37-47.
JPRS 45,204

The Traditional Unity Between Military and Civilian, by Pang Mun-gwon, 16 pp.
KOREAN, per, Kulloja, P'yongyang, 30 Jan 68, pp. 48-56.
JPRS 45,204

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KOREAN, per, Kulloja, P'yongyang, 30 Jan 68, pp. 57-64.
JPRS 45,204

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KOREAN, per, Kulloja, P'yongyang, 28 Feb 68, pp. 8-12.
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KOREAN, per, Kulloja, P'yongyang, 28 Feb 68, pp. 13-21.
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KOREAN, per, Kulloja, P'yongyang, Feb 68, pp. 22-27.
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Kim Il-Song's Idea on the Rural Question and its Embodiment, 32 pp.
KOREAN, per, Kulloja, P'yongyang, 28 Feb 68, pp. 28-44.
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KOREAN, per, Kulloja, P'yongyang, 28 Feb 68, pp. 59-64.
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KOREAN, np, Nodong Chongnyon, P'yongyang, 21 March 68, pp. 2,3.
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KOREAN, np, Nodong Chongnyon, P'yongyang, 26 March 68, p. 2.
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JPRS 45,408

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Security Policy of the Communist Party of Japan, 28 pp.
JAPANESE, np, Akahata, Tokyo, 8 Jan 68, pp. 2-3.
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Soviet Sinologist Describes China Trip, by A. Zhelokhovtsev, 46 pp.
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Ha Tinh Civilian Laborers Go to the Front, by
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VIETNAMESE, np, Quan Doi Nhan Dan, Hanoi,
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VIETNAMESE, per, Tuyen Huan, Hanoi, No. 3,
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Let Us Successfully Complete the Training of
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VIETNAMESE, per, Tuyen Huan, Hanoi, No. 3,
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VIETNAMESE, per, Tuyen Huan, Hanoi, No. 3,
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JPRS 45,298

Military

The Development of Modern Bombers, by Chien Kong,
8 pp.
CHINESE, per, Hang K'ung Chih Shih, Vol 2, No 6,
1965, pp 8-10. F100082768-V
FTD-HT-67-168

Military Leadership in Quang Binh, by
Nguyen Tu Thoan, 10 pp.
VIETNAMESE, np, Quan Doi Nhan Dan, Hanoi,
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VIETNAMESE, np, Quan Doi Nhan Dan, Hanoi,
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Organizational Study of the Telecommunications Service of Air Ministry, 6 pp.
PORTUGUESE, rpt, Aeronautical Telecommunications Study, Sept 1967, p 11.
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Economic Integration of Latin America Urgently Needed, 6 pp.
PORTUGUESE, per, O Globo, Rio de Janeiro, 22 April 68, p. 19.
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President Costa e Silva Wants the Rivers of Brazil to be as Useful as the Rhine.
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The Shipping and Maritime Transportation Companies Will Adopt New Policies and Will Take On New Objectives, 19 pp.
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SPANISH, per, Supplement to Issue No. 51 of Punto Final, 26 March 68, pp. 1-4.
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Statistics on Organized Labor in Chile, by Clotario Blest, 8 pp.
SPANISH, per, Punto Final, Santiago de Chile, 26 March 68, pp. 5-8.
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Colombia's Economic Growth Rate, by Sergio Munoz and Nora Panaranda, 5 pp.
SPANISH, np, El Tiempo, Bogota, 22 March 68, p. 25.
JPRS 45,147

Industrial Development of Peru, by Julio Cruzado Zavala, 6 pp.
SPANISH, np, La Tribuna, Lima, 2 April 68, pp. 12,13.
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Chile's Economic Policy, by Augusto Olivares, 9 pp.
SPANISH, np, Ultima Hora, Santiago de Chile, 19 April 68, pp. 8-9.
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SPANISH, per, Verde Olivo, Havana,
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HEBREW, np, Zo Haderekh, Tel Aviv,
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The Blocking of Fidel Castro in Bolivia, by Manuel Castillo, 6 pp.
FRENCH, per, Est et Ouest, Paris, 16-29 Feb 68, pp. 12-14.
JPRS 45,147

Political Vendetta in Guatemala, by Philippe Nourry, 6 pp.
FRENCH, newspaper, Le Figaro, Paris, 20 March 68, p. 5.
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Revolutionary Cuba Assessed, by Anne Loesch, 18 pp.
FRENCH, per, Jeune Afrique, Paris/Tunis,
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The Havana Congress -- West and Third World, by Antonio Lettieri, 7 pp.
ITALIAN, per, Problemi del Socialismo, Rome, Feb 68, pp. 139-145.
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Student Leader Interviewed by Foreign Correspondents, 5 pp.
PORTUGUESE, per, Jornal do Brasil, Rio de Janeiro, 9 April 68, p. 16.
JPRS 45,169

Latin America
Political (Contd)

Government By the Military to Continue in Foreseeable Future, by Murilo Melo Felho, 5 pp.
PORTUGUESE, per, Manchete, Rio de Janeiro, 23 March 68, pp. 24-27.
JPRS 45,169

Interview With Che Guevara's Widow, by Franco Pierini, 7 pp.
PORTUGUESE, per, Manchete, Rio de Janeiro, 20 April 68, pp. 38-42.
JPRS 45,280

A Chilean Marxist Looks at Guerrilla War, by Jose Rodriguez Elizondo, 14 pp.
SPANISH, per, Aurora, Santiago de Chile, No. 14, 1968, pp. 5-13.
JPRS 45,219

Interview With Survivors of Guevara's Last Battle, by Franco Pierini, 9 pp.
SPANISH, per, Bohemia, Caracas, 21 April 68, pp. 20, 22-23, 72-73.
JPRS 45,203

Changes in Election Laws Summarized, 11 pp.
SPANISH, np, La Cronica, Part One, 11 March 68, p. 4; Part Two, 12 March, p. 5; Part Three, 13 March 68, p. 4.
JPRS 45,147

President Pacheco Bids Nation Be Confident, by President Pacheco, 18 pp.
SPANISH, np, El Dia, Montevideo, 2 March 68, pp. 6 and 10.
JPRS 45,147

Exclusive:Papa Doc Confesses, by Julian de Sade, 8 pp.
SPANISH, per, Elite, Caracas, 6 April 68, pp. 58-61.
JPRS 45,143

Relations With USSR Facilitate Communist Subversion, by Alejandro Kaznacheyev, 13 pp.
SPANISH, per, Este y Oeste, Caracas/Paris, March 68, pp. 1-9.
JPRS 45,459

Latin America
Political (Contd)

Soviet Interests in the South Atlantic, by
Alphonse Max, 7 pp.
SPANISH, per, Este y Oeste, Caracas/Paris,
March 68, pp. 17-21.
JPRS 45,459

Trotskyites Urge Unity of Action to Force
Government Action, 5 pp.
SPANISH, np, Frente Obrero, Montevideo,
15 March 68, pp. 1,6.
JPRS 45,169

Monsignor German Guzman Campos Assails North
American Imperialism, by Carlos del Rio,
8 pp.
SPANISH, np, Frente Popular, Bogota, March
1968, pp. 3-4.
JPRS 45,459

Critique of Uruguayan Trotskyite Radio
Program by J. Posadas, 23 pp.
SPANISH, np, Frente Obrero, Montevideo,
8 March 68, pp. 3-7.
JPRS 45,430

Regulations Governing Construction Workers
Issued, 7 pp.
SPANISH, per, Gaceta Oficial, Havana,
8 March 68, pp. 8-11.
JPRS 45,219

Nationalization of Private Sector Nears
Completion, 6 pp.
SPANISH, np, Granma, Havana, 29 March 68,
p. 2.
JPRS 45,147

March of the Sugar Cane Workers, 5 pp.
SPANISH, np, Izquierda, Montevideo,
22 March 68, p. 12.
JPRS 45,147

The Anti-Imperialist Struggle in Brazil, by
Miguel Arrais, 8 pp.
SPANISH, per, Marcha, Montevideo, 29 March 68,
pp. 20-24.
JPRS 45,280

Latin America
Political (Contd)

Chile Viewed as Expansionist, 8 pp.
SPANISH, np, El Mundo, Lima, March 68,
pp. 16-18.
JPRS 45,280

Chilean Politics -- Selfcritical Analysis,
by Renan Fuentealba, 33 pp.
SPANISH, np, La Nacion, Santiago, 29 March 68,
pp. 7-9.
JPRS 45,373

Senator Claims Wage and Salary Increases
Excessive, by Patricio Aylwin, 13 pp.
SPANISH, np, La Nacion, Santiago 8 April 68,
p. 17.
JPRS 45,459

Two Guerrilla Groups Still in Santander, by
Jaime Rojas Tarazona, 6 pp.
SPANISH, np, El Pais, Cali, 27 March 68,
pp. 9, 21.
JPRS 45,203

Recent Revolutionary Armed Action in Colombia,
by Jaime Gonzalez, 8 pp.
SPANISH, np, El Popular, 16 March 68,
Montevideo, pp. 4-5.
JPRS 45,169

US Communist Party Secretary Interviewed on
Death of Reverend King, by Carlos Castel-
grande, 5 pp.
SPANISH, np, El Popular, 14 April 68, p. 2.
JPRS 45,459

A Look at the Possible Peruvian Presidential
Candidates, 13 pp.
SPANISH, newspaper, La Prensa, Lima, Sunday
Supplement 7 Dias, 7 April 68, pp. 33-39.
JPRS 45,203

Forms of the Popular Armed Struggle Listed,
by J. B., 5 pp.
SPANISH, np, Punto Final, Santiago, 26 March
68, pp. 16-17.
JPRS 45,169

Communist Ideological Conflict in Chile, by
Jaime Faivovich, 7 pp.
SPANISH, np, Punto Final, Santiago,
16 Jan 68, pp. 44-46.
JPRS 45,169

Latin America
Political (Contd)

Soviet Diplomat Accused of Political Intervention in Argentina, 6 pp.
SPANISH, np, El Siglo, Bogota, 23 March 68, p. 2.
JPRS 45,147

Liberal Senator Objects to Ospina as Conservative Presidential Candidate, 8 pp.
SPANISH, np, El Siglo, Bogota, 30 March 68, p. 9.
JPRS 45,219

Conservative Press Raps Liberal's Veto of Ospina, 5 pp.
SPANISH, np, El Siglo, Bogota, 31 March 68, p. 3.
JPRS 45,219

Chilean CP Secretary-General Addresses Senate, by Luis Corvalan, 9 pp.
SPANISH, np, El Siglo, Santiago, 3 April 68, p. 7.
JPRS 45,459

Military

Basic Support Unit of Our Army.
SPANISH, per, Revista de las Fuerzas Armadas de Venezuela, No 237, pp 38-47.
DIA LN 476-68

The Unrivaled Weapon in Unconventional Warfare, the M66. Caliber 60 millimeter Pursuit Mortar, 8 pp.
SPANISH, per, Revista de las Fuerzas Armadas de Venezuela, No 238, pp 58-63.
DIA LN 476-68

Sociological

Birth Control in Latin America, 10 pp.
SPANISH, per, Caracas, Lima, 13-25 March 68, pp. 19-21.
JPRS 45,219

Latin America
Sociological (Contd)

Peruvian Priests Declare for Social Reform, 9 pp.
SPANISH, np, El Comercio, Lima, 22 March 68, p. 6.
JPRS 45,143

Public Health Ministry Plan for 1968-1970 Outlined, 10 pp.
SPANISH, np, Granma, Havana, 4 April 68, p.6 and 5 April 68, p. 6.
JPRS 45,280

Pastoral Letter on Church's Participation in National Community, 17 pp.
SPANISH, np, La Nacion, Santiago, 7 April 68, pp. 14-15.
JPRS 45,459

Moscow's Influence on Education in Chile Scored, 6 pp.
SPANISH, np, PEC, Santiago, 5 April 68, pp. 9-10.
JPRS 45,373

Seminar on an Autonomous Cultural Policy for Latin America, by Oscar J. Maggiolo, 7 pp.
SPANISH, np, El Popular, Montevideo, 5 April 68, pp. 8-10.
JPRS 45,373

Opinions on the Seminar from Argentinian Participants, 7 pp.
SPANISH, np, El Popular, Montevideo, 5 April 68, pp. 9-10.
JPRS 45,373

Biographic

Admiral Carrero Blanco, Government Vice-President, 18 pp.
SPANISH, per, Africa, No 310, Oct 1967, pp 4-10.
DIA LN 605-68

SCIENTIFIC

Aeronautics

Calculation and Design, Oscillation and Durability.

RUSSIAN, bk, Helicopters, Vol 2.

*FTD-MT-24-103-68

Testing Aviation Jet Engines, by G. M. Gorbunov. RUSSIAN, bk, Ispytaniya Aviatsionnykh Vozdushno-Reaktivnykh Dvigatelye, 1967, 95 pp.

*FTD-MT-24-149-68

Aerodynamic Characteristics of a Thin Wedge in a Hypersonic Nonequilibrium Flow, by O. Yu. Polyanskiy.

RUSSIAN, per, AN SSSR, Izv., Mekh, Zhidkosti i Gaza, No 6, 1967, pp 133-138.

*Dept of Navy/APL/JHU J-1162

Oscillations of an Elastic Plate in a Fluid, by A. S. Povitskiy, 7 pp.

RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy. Aviatsionnaya Tekhnika, No 4, 1958, pp 30-35. FI00080468-V

FTD-HT-66-790

Certain Problems of Gas Dynamics of Streams in Transverse Flow During Burning, by V. A. Kosterin, Ye. V. Rahevskiy, 11 pp.

RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy. Aviatsionnaya Tekhnika, No 1, 1966, pp 130-139. FI00081568-V

FTD-MT-24-303-67

Experimental Investigation of the Interaction Region During Injection of a Secondary Jet into a Plane Supersonic Flow, by B. S. Vinogradov and Z. G. Shaikhutdinov, 11 pp.

RUSSIAN, per, VUZ, Izv. Aviatsionnaya Tekh., No 2, 1967, pp 81-88.

Dept of Navy/APL/JHU T-2127

Stability of a Two-Dimensional Incompressible Fluid Flow in a Boundary Layer at Small Accelerations, by N. N. Nikitin.

RUSSIAN, per, VUZ, Izv. Aviatsionnaya Tekhnika, No 4, 1967, pp 16-23.

*Dept of Navy/APL/JHU J-1167

A Fast Neutron Time-of-Flight Spectrometer with Pulsed Neutron Source, by D. Seeliger.

GERMAN, per, Kernenergie, Vol 10, No 12, 1967, pp 366-368.

*FTD-HT-23-457-68

Scientific Aeronautics (Contd)

Icing of Aircraft and the Means of Preventing It, by O. K. Trunov, 235 pp.

RUSSIAN, bk, Obledeneniye Samoletov i Sredstva Bor'by s Nim, 1965, pp 1-247. FI00094568-V

FTD-MT-65-490

Bases of Gas Dynamics and Their Application to the Calculation of Supersonic Wind Tunnels, by I. A. Panichkin and A. B. Syakhov, 143 pp. RUSSIAN, bk, Osnovy Gazovoy Dinamiki i Ikh Prilozheniye k Raschetu Sverkhzvukovykh Aerodinamicheskikh Trub, Izd-Vo Kievskogo Universiteta, Kiev, 1965, pp 1-152. FI00094268-V

FTD-MT-67-66

Arrangement of a Graph in a Plane, by G. S. Plesnevich.

RUSSIAN, per, Sb. Vychisl. sistemy, Novosibirsk, Vol 6, 1963, pp 45-53.

*FTD-HT-23-1029-67

On Demonstration of the Reliability Level of Aircraft Gas-Turbine Engines, by S. A. Mirzoyan. RUSSIAN, per, Standarty i Kachestvo, No 4, 1967, pp 43-47.

*FTD-MT-24-170-68

Thermal State of Gas Turbine Rotor Disks and Their Temperature Stresses, by G. A. Kuz'min.

RUSSIAN, per, Kazan. Aviatsionnyy Institut. Trudy. Aviatsionnyye Dvigateli, No 76, 1963, pp 74-88.

*FTD-HT-67-705

Experimental Research in Developing Yugoslavian Aircraft Concepts, by Miroslav Nenadovic, 12 pp.

SERBO-CROATIAN, per, Spomenica u Cast Novozabranih Clanova Srpske Akademije Nauka i Umetnosti, Belgrade, April 67, pp. 182-188. JPRS 45,401

Agriculture

Soil Microflora and the First Phases of Wood Destruction During Range Tests, by I. A. Petrenko. RUSSIAN, per, Drevesina Yeye Zashchita i Plastiki, 1967.

ACSI J-4581
ID 2204012268

Scientific
Agriculture (Contd)

Farming Potentials in the Ukraine, by
P. Doroshenko, 7 pp.
RUSSIAN, np, Ekonomicheskaya Gazeta,
Moscow, No. 13, March 68, pp. 4-5.
JPRS 45,394

Geographical Distribution of Agricultural
Production, by N. Aleksandrov and A.
Kaminsky, 8 pp.
RUSSIAN, np, Ekonomicheskaya Gazeta,
No. 13, Moscow, March 68, pp. 28-29.
JPRS 45,394

The Dense Taiga Forest of Siberia,
by L. Shinkarev, 8 pp.
RUSSIAN, np, Izvestiya, Moscow, 3 April 68,
p. 3.
JPRS 45,355

Lisichkin Defends Agricultural Views, by
G. Lisichkin, 12 pp.
RUSSIAN, per, Novyy Mir, Moscow, No. 12,
Dec 67, pp. 228-235.
JPRS 45,237

Managerial Problems in Kolkhozes, by
A. Volkov and G. Lisichkin, 15 pp.
RUSSIAN, per, Novyy Mir, Moscow, No. 1,
Jan 68, pp. 164-172.
JPRS 45,237

Discussion of Problems in Agriculture, by
A. Volkov and G. Lisichkin, 6 pp.
RUSSIAN, per, Pravda, Moscow, 21 March 68,
p. 2.
JPRS 45,258

Improved Farming Practices Urged, by I.
Ksenz, 7 pp.
RUSSIAN, per, Pravda, Moscow, 27 Dec 67,
p. 2.
JPRS 45,258

Kolkhoz Markets Offer Promising Future for
Agriculture, by D. Gapner, 6 pp.
RUSSIAN, np, Sovetskaya Moldaviya,
Kishinov, 22 March 68, pp. 3-4.
JPRS 45,270

Scientific
Agriculture (Contd)

Problems With Grain Harvesting Machinery,
by Vyacheslav Pal'man, 7 pp.
RUSSIAN, np, Sovetskaya Rossiya,
9 April 68, pp. 2-3.
JPRS 45,293

Analyzing Machine and Tractor Fleet Use
in Kolkhozes and Sovkhozes, by
A. Polin'chereda, 16 pp.
RUSSIAN, per, Vestnik Statistiki, Moscow,
March 68, pp. 3-13.
JPRS 45,383

Kolkhozes and Fiscal Policy, by V. Yermenko,
6 pp.
RUSSIAN, per, Zakupki Sel'skokhozyaystvennykh
Produktov, Moscow, March 68, pp. 10-12.
JPRS 45,270

UAR Agricultural Specialists: Too Many
or Too Few, 18 pp.
ARABIC, per, Al-Iqtisadi, Cairo, 15 Feb 68,
pp. 26-35.
JPRS 45,379

Results of the 1967 Inventory of Forest
Plantings, by M. Mikhaylov, 8 pp.
BULGARIAN, per, Gorsko Stopanstvo, Sofia,
March 68, pp. 23-27.
JPRS 45,391

Soviet Influence on Bulgarian Seed Selection,
by Atanas Popov, 8 pp.
BULGARIAN, per, Selskostopanska Nauka,
Sofia, No. 4, Oct-Dec 67, pp. 3-9.
JPRS 45,391

Status of Complex Experimental Stations, by
Pavel Popov, 13 pp.
BULGARIAN, per, Selskostopanska Nauka, Sofia,
No. 4, Oct-Dec 67, pp. 11-21.
JPRS 45,391

Labor Productivity on Cooperative Labor
Farms, by Todor Fenev, 12 pp.
BULGARIAN, per, Selskostopanska Nauka,
Sofia, No. 4, Oct-Dec 67, pp. 47-58.
JPRS 45,391

Scientific
Agriculture (Contd)

The Experience of Northern Anhwei Peasants in Classifying and Ameliorating Saline Alkali Soils, by Sung Chung-th'i, 11 pp.
CHINESE, per, T'u-jang, Peking, Aug 61, pp. 52-54.
JPRS 45,417

Reaction of Rape-Seed Oil with Sulphur, by J. Zajic & O. Kopecka.
CZECH, per, Průmysl Potravin, Vol 15, 1964, pp 395-396.
*CFSTI TT 68-50075

Potential Utilization of Rape Oil Fatty Acids for Technical Use, by V. Jancik.
CZECH, per, Průmysl Potravin, Vol 15, 1964, pp 403-404.
*CFSTI TT 68-50074

Crop and Weather Report, February 1968, by Dr. D. Krumbiegel, 6 pp.
GERMAN, per, Feldwirtschaft, April 68, pp. 191-192.
JPRS 45,347

The Synecology of Soil Microflora - Application to the Study of Biodeterioration.
GERMAN, per, Material und Organismen, Vol 2, No 1, 1967, pp 46-63.
*ACSI J-4622
*FSTC HT-23-93-68

Profitability on Cooperative Farms, by Dr. Jozsef Takacs, 25 pp.
HUNGARIAN, per, Statistikai Szemle, Budapest, No. 2, Feb 68, pp. 123-143.
JPRS 45,250

Special Report on the Overwintering and Over-summering of the Cereal Grass Stripe Rust Pathogenic Fungi and the Primary Sources of Infection.
JAPANESE, bk, Researches on the Overwintering, Overwintering, and Source of Primary Infection of Stripe Rust in Wheat and Barley, Second Part, pp 263-451.
*ACSI J-3383B
ID Incl to 2222183066

Scientific
Agriculture (Contd)

Improved Land Use Urged, by Jozef Tejchma, 8 pp.
POLISH, per, Nowe Rolnictwo, Warsaw, No. 3, Feb 68, pp. 1-3.
JPRS 45,207

Current Tasks of People's Councils in the Field of Agriculture, by Dr. Mieczyslaw Jagielski, 19 pp.
POLISH, per, Nowe Rolnictwo, No. 4, Warsaw, No. 4, 16-29 Feb 68, pp. 1-7.
JPRS 45,311

New Goals for Agricultural Circles, by Jozef Tejchma, 8 pp.
POLISH, per, Wies Wspolczesna, Warsaw, March 68, pp. 3-8.
JPRS 45,311

Organizations for Cooperation Among Collective Farms, by Gheorghe Rosu, 6 pp.
RUMANIAN, per, Agricultura Socialista, Bucharest, 8 Feb 68, pp. 1,4.
JPRS 45,311

The Place and Role of Animal Production in the National Economy, by Dr. I. Saghin, 10 pp.
RUMANIAN, per, Revista de Zootehnie si Medicina Veterinara, No. 3, March 68, pp. 10-16.
JPRS 45,207

Some Indicators of the Development of Agriculture in the Past Decade, by Dragoslav Mutapovic, 16 pp.
SERBO-CROATIAN, per, Ekonomika Poljoprivrede, Belgrade, March 68, pp. 155-167.
JPRS 45,391

The Developmental Possibilities of Agriculture in 1968, by Dr. Petar Milanovic, 9 pp.
SERBO-CROATIAN, per, Glasnik Poljoprivrede i Zdrugarstva, No. 2, Belgrade, Feb 68, pp. 14-19
JPRS 45,315

How the Medium-Term (1966-1970) Plan for Agriculture is being Fulfilled, by Dzsemal Drace, 12 pp.
SERBO-CROATIAN, per, Glasnik Poljoprivrede i Zdrugarstva, No. 4, Belgrade, 1968, pp. 15-22.
JPRS 45,449

Scientific
Agriculture (Contd)

The Work of the Corn Institute, by
Dr. Vladimir Trifunovic, 5 pp.
SERBO-CROATIAN, per, Poljoprivreda, Belgrade,
No. 2, Feb 68, pp. 3-6.
JPRS 45,315

Wheat Production in Yugoslavia, by Matija
Panjakovic, 19 pp.
SERBO-CROATIAN, per, Produktivnost, Belgrade,
Feb 68, pp. 103-109.
JPRS 45,311

Interview With Minister of Agriculture, by
Alvaro Monroy Caicedo, 7 pp.
SPANISH, np, El Espectador, Bogota,
24 March 68, pp. D-1, 7.
JPRS 45,169

New Mechanized Harvesting Techniques, by
Fernando G. Davalos, 7 pp.
SPANISH, np, Granma, Havana, 29 March 68,
p. 5.
JPRS 45,219

Agriculture in Haiphong and Four Provinces,
5 pp.
VIETNAMESE, np, Nhan Dan, Hanoi, 3 April 68,
p. 1.
JPRS 45,348

Hog Raising in Quang Oai, by Ho Van, 5 pp.
VIETNAMESE, np, Nhan Dan, Hanoi,
7 April 68, p. 2.
JPRS 45,419

Astronomy & Astrophysics

Tartu Station for Observing Artificial Earth
Satellites, by M. K. Liygant.
RUSSIAN, per, AN SSSR. Astronomicheskii Sovet.
Bulleten' Stantsii Opticheskogo Nabljudeniia
Iскусstvennykh Sputnikov Zemli, No 33, 1963,
pp 26-29.
*FTD-HT-66-321

Scientific
Astronomy & Astrophysics (Contd)

On Secular Acceleration of Periodical Motion
of Comets, by A. D. Dubyago.
RUSSIAN, per, Astronomicheskii Zhurnal, 1948,
pp 362-368. P910128168-V
Sci Tech Info Facility
ST-COM-CM-10681

Observations and Interpretation of Ultraviolet
Emission from the Galaxy, by V. G. Kurt and R.
A. Syunyayev.
RUSSIAN, per, Astronomicheskii Zhurnal, Vol 44,
No 6, 1967, pp 1157-1161. P910125268-V
Sci Tech Info Facility
ST-IGA-10690

On Some Magnetohydrodynamic Effects in Comets,
by Z. M. Ioffe.
RUSSIAN, per, Astronomicheskii Zhurnal, Vol 44,
No 6, 1967, pp 1304-1308. P910125668-V
Sci Tech Info Facility
ST-COM-MHD-10694

Lunar-Solar Perturbations of a 24-Hour Satellite,
by B. K. Martynenko.
RUSSIAN, per, Bulleten Inst. Teoreticheskoy Astron.,
Vol 11, No 1, 1967, pp 33-47. P200057368-V
RSIC-740

On the Questioning on Polygonality and Irregul-
arity of the Shape of Certain Craters on the Moon,
by V. D. Davydov.
RUSSIAN, per, Doklady A.N. SSSR. Astronomiya,
Vol 178, No 4, 1968, pp 797-799. P910125968-V
Sci Tech Info Facility
ST-LPS-LS-10697

Determination of Chemical Composition of the
Atmosphere of Venus by the Interplanetary Station
"Venera-4", by A. P. Vinogradov, Yu. A. Surkov.
RUSSIAN, per, Doklady A. N. SSSR. Astronomiya,
Vol 179, No 1, 1968, pp 37-40. P910126068-V
Sci Tech Info Facility
ST-LPS-ACE-10699

Results of the Experiments on the Detection of
Lunar Ionosphere Conducted on the First Arti-
ficial Satellite of the Moon, by K. I. Gringaus,
V. V. Besrudikh.
RUSSIAN, per, Doklady A.N. SSSR. Geofizika,
Vol 170, No 6, 1966, pp 1308-1309. P910125768-V
Sci Tech Info Facility
ST-LPS-LA-10695

Scientific
Astronomy & Astrophysics (Contd)

Results of Investigation of Moon's Intrinsic Radiation, by V. S. Troitskiy.
RUSSIAN, per, Izv. V. U. Zav., Radiofizika, Izdaniye Gor'kovskogo Universiteta, Vol 10, No 9, pp 1266-1282. P910141068-V
Sci Tech Info Facility
ST-LPS-RAD-10698

X-Radiation of the Moon and Roentgen Cosmic Background According to Data of AMS "Luna-12", by S. L. Mandel'shtam, I. P. Tindb.
RUSSIAN, per, Kosmicheskiye Issledovaniya, Vol 6, No 1, 1968, pp 119-127. P910125168-V
Sci Tech Info Facility
ST-LPS-RAD-10689

Polar Magnetic Disturbances and Intrusion of Charged Particles into the Ionosphere, by R. G. Afonina, Ya. I. Fel'dshteyn.
RUSSIAN, per, Kosmicheskiye Issledovaniya, Vol 6, No 1, 1968, pp 150-152. P910125368-V
Sci Tech Info Facility
ST-GM-PF-10691

Magnetic Field in the Tail of the Magnetosphere and Its Dimensions, by G. V. Starkov, Ya. I. Feldshteyn.
RUSSIAN, per, Kosmicheskiye Issledovaniya, Vol 6, No 1, 1968, pp 153-154. P910125468-V
Sci Tech Info Facility
ST-GM-PF-10692

Model of a Shock Wave of Tungus Meteorite Explosion, by I. T. Zotkin.
RUSSIAN, per, Priroda, No 6, 1966, pp 81-89.
*TD-MT-23-409-68

The Role of Radio in Space Conquest, by V. I. Siforov.
RUSSIAN, bk, Radio 70 Let. Nauchno-Tekhnicheskiy Sbornik, 1965, pp 11-23. P100093668-V
FTD-MT-65-496

Radio Astronomy, by Yu. N. Pariyeviy and S. E. Khaykin.
RUSSIAN, bk, Radio 70 Let. Nauchno-Tekhnicheskiy Sbornik, 1965, pp 140-153. P100093668-V
FTD-MT-65-496

Radar Investigations of the Solar System Planets, by B. I. Kuznetsov, I. V. Idzhin.
RUSSIAN, bk, Radio 70 Let. Nauchno-Tekhnicheskiy Sbornik, 1965, pp 154-168. P100093668-V
FTD-MT-65-496

Scientific
Astronomy & Astrophysics (Contd)

Development of Astronomy in SSSR, by A. A. Mikhaylov.
RUSSIAN, bk, Razvitiye Astronomii v SSSR, Moscow, 1967, pp 1-474.
*FTD-MT-24-186-68

Pressing Problems of Astrometry, by M. S. Zverev, 7 pp.
RUSSIAN, per, Trudy 17-y Astrometricheskoy Konferentsii SSSR, Leningrad, 1967, Science Publishing House, pp.35-40.
JPRS 45,452

Errors in GC Catalog for Epoch 1960.0, by A.S. Kharin, 6 pp.
RUSSIAN, per, Trudy 17-y Astrometricheskoy Konferentsii SSSR, Leningrad, 1967, Science Publishing House, pp. 77-81.
JPRS 45,452

Large Transit Instrument for Observations of Southern Hemisphere Stars, by A.A. Nemiro and Yu. S. Streletskiy, 7 pp.
RUSSIAN, per, Trudy 17-y Astrometricheskoy Konferentsii SSSR, Leningrad, 1967, Science Publishing House, pp. 114-119.
JPRS 45,452

Measurements of the Brightness Coefficient of the Ground and Clouds from an Airplane, by I. N. Kostyanov, L. A. Pakhomova.
RUSSIAN, per, Tsentral'naya Aerologicheskaya Observatoriya. Trudy, Aerodinamicheskoy i Aerologicheskoy Issledovaniya, No 66, 1965, pp 63-72.
*FTD-MT-24-83-68

Photographic Spectrophotometry of H and K Ca II Lines in the Center of the Disk and in the Total Flux of THE Sun, by O. A. Mal'nikov and S. S. Zhuravlev.
RUSSIAN, per, Leningrad. Universitet. Vestnik. Seriya Matematiki, Mekhaniki i Astronomii, No 4, 1965, pp 135-141. P100094768-V
FTD-MT-64-146

A Statistical Method to Make Apparent the Multiple System of Stars, by B. I. Pesenko, 7 pp.
RUSSIAN, per, Leningrad. Universitet. Vestnik. Seriya Matematiki, Mekhaniki i Astronomii, No 2, 1964, pp 144-148. P100097668-V
FTD-MT-64-357

Scientific
Astronomy & Astrophysics (Contd)

High-Sensitivity Method of Glow Discharge for Visualization of Supersonic Flows of Rarefied Gas, by V. M. Kalugin, 11 pp.
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 4, 1966, pp 108-112.
P100081468-V
FTD-MT-24-125-67

Solar Telescope Designed and Constructed in China, by YANG Chen-hua, et al., 6 pp.
CHINESE, per, T'ien-wen Ai-hao-che, Peking, No. 5, May 66, pp. 1-3.
JPRS 45,194

Automatic Calculation of Planetary Perturbations and Improvement of Orbits and Opposition Ephemeris of Asteroids, by Chang Chia-hsiang et al, 20 pp.
CHINESE, per, T'ien-wen Hsueh-pao, Peking, Vol. 13, No. 1, June 65, pp. 75-88.
JPRS 45,281

Ancient Chinese Records of Meteor Showers, by Chuang T'ien-shan, 52 pp.
CHINESE, per, T'ien-wen Hsueh-pao, Peking, Vol. 14, No. 1, June 66, pp. 37-58.
JPRS 45,320

Atmospheric Sciences

Oxygen and Water Vapor in the Atmospheres of Venus and Mars, by V. K. Prokof'yev.
RUSSIAN, per, AN SSSR, Kosmos, No 2, 1965, pp 19-32.
*FTD-MT-24-203-68

Certain Peculiarities of Magnetic Ionospheric Disturbances in the Transition Zone, by Ye. P. Glushkova, 19 pp.
RUSSIAN, per, AN SSSR, Nauchnoissledovatel'skiy Geofizicheskii Komitet. V Ramek Programmy MGO: Ionosfera. Sbornik Statist. Issledovaniya, No 14, 1965, pp 104-116.
P100082368-V
FTD-MT-24-160-67

Model of the Atmosphere and Surface of Mars from the Hypothesis of Purely Scattering Atmospheres, by V. V. Sharonov.
RUSSIAN, per, AN SSSR, Voprasy Astrofiz. Issledov Atmos Venery i Marsa, 1965, pp 72-76.
*FTD-MT-24-401-68

Scientific
Atmospheric Sciences (Contd)

Electricity of the Free Atmosphere. Results of Measurements During the IGY and IBC, by I. M. Izyaninov.
RUSSIAN, rpt, Elek Svobodnoy Atmos: Rezul'taty Izmereniy vo Vremya MGO i MGS, Leningrad, Gidrometeorizdat, 1965, 239 pp.
*FTD-MT-24-156-68

Vertical Distribution of Atmospheric Ozone, by A. Kh. Khrgian, 8 pp.
RUSSIAN, per, Geomagnetizm i Aeronomiya, Vol 7, No 2, 1967, pp 317-322.
ACSI J-4306
ID 2204004268

Atmospheric Aerosols, by E. S. Sol'sheva, 174 pp.
RUSSIAN, mono, Gidrometizdat, 1966.
*CFSTI TT 68-50637

Liquid Precipitation and Hail, by G. K. Sulakvalidse, 412 pp.
RUSSIAN, mono, Gidrometeorizdat, 1967.
*CFSTI TT 68-50466

Some Results of Investigation of Turbulent Exchange in the Atmospheric Surface Layer Over the Indian Ocean, by M.F. Naumenko, 6 pp.
RUSSIAN, per, Issledovaniya v Severo-Zapadnoy Chasti Indivskogo Okeana, Sev. stopol', 1967, pp. 42-47.
JPRS 45,341

Radioactivity in the Atmospheric Surface Layer of the Northern Part of the Indian Ocean, by A.D. Zamiyanov and V.P. Kotelnikov, 6 pp.
RUSSIAN, per, Issledovaniya v Severo-Zapadnoy Chasti Indivskogo Okeana, Sevastopol', 1967, pp. 102-107.
JPRS 45,341

Model Atmosphere of Planet Venus According to the Results of Measurements on the Soviet Automatic Interplanetary Station "Venera-4", by V. S. Avduyevskiy & N. Ya. Marov.
RUSSIAN, rpt, From Preprint Presented at the 2nd Arizona Conference on Planetary Atmospheres, 11-13 Mar 1968. P910140968-V
Sci Tech Info Facility
ST-LPS-PA-10704

Scientific
Atmospheric Sciences (Contd)

Seasonal and Intraseasonal Variations of Temperature, Geopotential and Atmospheric Circulation in the Stratosphere, by K. P. Pogosyan. RUSSIAN, mon, Sezonnyye i Vnutrisезонnyye izmeneniya Temperatury, Geopotentsiala i Atmosfernoy Tsirkulyatsii v Stratosfere, 1965, pp 1-108.

*FTD-MT-24-147-68

Snow Purification, by D. A. Shalman. RUSSIAN, bk, Snegochistiteli, 1967, pp 3-20.

*ACSI J-4820

*FSTC HT-23-52-68

On the Structure of the Neutral Upper Atmosphere, by M. N. Izakov.

RUSSIAN, per, Space Science Reviews, Vol 7, 1967, pp 597-641.

*NASA TT F-11,786

Manual on the Climate of the USSR.

RUSSIAN, bk, Spravochnik po Klimatu SSSR, Vol 27, 1966, pp 1-181.

*FTD-MT-24-185-68

Variability of Showers with Time and Space on the Basis of Radar Observation Data, by

A. A. Anchugova & T. I. Morozova.

RUSSIAN, per, Glavnaya Geofizicheskaya Observatoriya

Trudy, Fizika Oblakov i Aktivnykh Vozdeystviy,

No 186, 1966, pp 36-92.

ACSI J-4304

ID 2204004068

Dynamic Characteristics of Atmospheric Density at Altitudes of 200-300 km, by M. Ya. Marov.

RUSSIAN, per, Vsesoyuznaya Konferentsiya po Fiziko-kosmicheskogo Prostranstva, Moskva, 1965, Issledov. Kosmichesk. Prostranstva. Trudy Konf., 1965, pp 41-48.

*FTD-MT-24-152-68

Composition of the Atmosphere in the Region 100-200km, by A. D. Danilov.

RUSSIAN, per, Vsesoyuznaya Konferentsiya po Fiziko-kosmicheskogo Prostranstva, Moskva, 1965, Trudy Konf., 1965, pp 48-50.

*FTD-MT-24-152-68

Total Amount of Neutral Hydrogen in the Upper Atmosphere of the Earth, by V. G. Kart.

RUSSIAN, rpt, Vsesoyuznaya Konferentsiya po Fiziko-kosmicheskogo Prostranstva, Moskva, 1965, Trudy Konferentsii, 1965, p 51.

*FTD-MT-24-152-68

Scientific
Atmospheric Sciences (Contd)

Results of Analysis of Experimental Data Characterizing the Distribution of Atmospheric Pollutions Near the Thermal Electric Power Stations, by R. I. Onikul, G. A. Panfilov. RUSSIAN, per, Leningrad. Glavnaya Geofizicheskaya Observatoriya. Trudy. Voprosy Atmosfery Diffuzii i Zagryazneniya Vozdukh, No 172, 1965, pp 23-34.

PI00079268-V

FTD-MT-24-186-67

Analysis of Dispersion of Horizontal Oscillations of the Wind Direction, by Ye. L. Genikhovich, V. P. Gracheva.

RUSSIAN, per, Leningrad. Glavnaya Geofizicheskaya Observatoriya. Trudy. Voprosy Atmosfery Diffuzii i Zagryazneniya Vozdukh, No 172, 1965, pp 42-47.

PI00079268-V

FTD-MT-24-186-67

The Question of Horizontal Scattering of Impurity in the Atmosphere, by V. S. Yeliseyev.

RUSSIAN, per, Leningrad. Glavnaya Geofizicheskaya Observatoriya. Trudy. Voprosy Atmosfery Diffuzii i Zagryazneniya Vozdukh, No 172, 1965, pp 74-78.

PI00079268-V

FTD-MT-24-186-67

Wind Gustiness in the Lower Layers of the Atmosphere, by M. M. Borisenko.

RUSSIAN, per, Trudy, Leningrad. Glavnaya Geofizicheskaya Observatoriya. Voprosy Prikladnoy Klimatologii, No 210, 1967, pp 122-136.

*FTD-MT-24-204-68

Horizontal Temperature Gradients in the Low Stratosphere Over the Northern Hemisphere, by V. S. Komarov.

RUSSIAN, per, Moscow. Nauchno-issledovatel'skiy inst. aeroklimatologii Trudy, No 28, 1964, pp 43-61.

*FTD-MT-24-166-68

Day-to-Day Variability of Temperature in the Stratosphere in January and July, by G. G. Olintseva-Mebrat.

RUSSIAN, per, Moscow. Tsentral'nyy institut meteorologii Trudy, No 152, 1966, pp 68-72.

*FTD-MT-24-165-68

Climatic Zoning of the Territory of the USSR for Technical Purposes, by S. K. Kopeliovich.

RUSSIAN, per, Nauchno-issledovatel'skiy Institut Aeroklimatologii Trudy. Voprosy Klimatologii, No 37, 1966, pp 103-117.

ACSI J-4303

ID 2204003968

Scientific
Atmospheric Sciences (Contd)

Aerodynamic Conditions of the Height of the Upper Cloud Boundary Along the Tashkent-Moscow Air Route, by I. V. Bugayeva.
RUSSIAN, per, Tashkent, Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologicheskii institut, Trudy, Voprosy Aviatcionnoy meteorologii, No 10 (25), 1963, pp 88-115.
*FTD-MT-24-161-68

Mean Monthly Variability of the Mean Multiyear Values of Temperature and Pressure in the Free Atmosphere Over Central Asia and Kazakhstan, by S. N. Ivanova.
RUSSIAN, per, Tashkent, Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologicheskii institut, Trudy, Voprosy aerologii subtropicheskikh i tropicheskikh rayonov, No 23 (38), 1965, pp 35-43.
*FTD-MT-24-167-68

Hydrodynamic Model for the Calculation of Heat Fluxes During the Formation of the Vertical Temperature Profile in the Stratosphere, by V. S. Purganskiy.
RUSSIAN, per, Tsentral'naya aerologicheskaya observatoriya, Trudy, No 69, 1966, pp 71-76.
*FTD-HT-23-414-68

On the Troposphere-Stratosphere Interaction at Mid-latitudes, by B. N. Trubnikov, I. A. Shcherba.
RUSSIAN, per, Tsentral'naya Aerologicheskaya Observatoriya, Trudy, Fizika Vysokikh Sloev Atmosfery, No 69, 1966, pp 44-52.
*FTD-MT-24-80-68

Synthesis of Trajectories Around the Moon with Return to the Earth Atmosphere, by V. A. Il'yin.
RUSSIAN, per, Zhurnal Vysshelitel'noy Matematiki, Vol 7, No 2, 1967, pp 367-388. P910141568-V
Sci Tech Info Facility
ST-CI-10682

Atmospheric Pollution and Corrective Measures.
FRENCH, rpt, Aug 1964.
DIA 2 832 0153 68

On the Existence of a Zonal Structure of the Lower Atmosphere, Principally in the Southern Hemisphere, by Gerard Lambert & Jacques Labeyrie.
FRENCH, per, C.R. Acad. Sc. Paris, Vol 261, 8 Nov 1965, pp 3857-3860. P500092168-V
Dept of Navy NIC tr 2587

News of Bloc Meteorology, 17 pp.
HUNGARIAN, journal, Idolasag, Budapest, No. XIX, Jan-Feb 68, pp. 53-63.
JPRS 45,164

Scientific
Biological & Medical Sciences

Influence of Cholinesterase Reactivating Agents TMB-4 and 2 PAM on the Effect of Muscle Relaxants, by A. F. Danilov and V. V. Lavrent'yeva.
RUSSIAN, rpt.
*ACSI J-4784
*FSTC HT-23-85-68

Study of Mechanism of Antibiotic Action on Immunogenesis in Tularemia Cases, by S. A. Tsareva.
RUSSIAN, per, Antibiotiki, Vol 12, No 8, 1967.
*ACSI J-4793
*FSTC HT-23-30-68

Immunogenesis by Aerosol Vaccination Against Experimental Ornithosis, by B.S. Gusman, et al, 8 pp.
RUSSIAN, per, Arkhiv Patologii, No. 2, Moscow, 1968, pp. 58-63.
JPRS 45,337

The Bacteriological Weapon and Defense Against It, by A. M. Arkhangel'skiy, et al.
RUSSIAN, bk, Bakteriologicheskoye Oruzhiye i Zashchita ot Nego, 1967.
*ACSI J-4780
*FSTC HT-23-78-68

Biological Action of High Energy Protons, by Yu. G. Grigor'yeva.
RUSSIAN, bk, Biologicheskoye Devstviye Protonov Vysokikh Energii, 308 pp.
*FTD-MT-24-150-68

Microscopic Examinations of Spruce and Larch Wood Attacked by Wood-Staining Fungi, by A. A. Konstantnaya.
RUSSIAN, per, Botanicheskii Zhurnal, Vol 49, No 1, 1 Jan 1964, pp 105-109.
ACSI J-4414
ID 2204007768

Advances and Current Tasks in the Investigation of Terrestrial Biogeocenoses in the USSR, by Ye. M. Lavrenko and M.V. Bylis, 19 pp.
RUSSIAN, journal, Botanicheskii Zhurnal, Leningrad, Vol. 53, No. 2, 1968, pp. 153-167.
JPRS 45,304.

Scientific
Biological & Medical Sciences (Contd)

Changes in the Activity of Cholinesterase and Blood Catecholamine Content in Staphylococcal Intoxication in Adult Dogs, by V. D. Rozanova. RUSSIAN, per, Byulleten Eksperimental'noy Biologii i Meditsiny, No 10, 1967, pp 34-36.
*ACSI J-4908
*PSTC-HT-23-68-68

The Role of Phosphopyridoxal in Enzyme Formation and the Splitting of Cystathionine at Transfer of Sulfur, by E. Goriachenkova. RUSSIAN, per, Dokl Akad Nauk SSSR, Vol 85, No 3, 1952, pp 603-606.
HEW NIH
4-34-66

Medical Geography of Yemen, by I.A. Klimov, 21 pp.
RUSSIAN, papers, Doklady po Meditsinskoy Geografii, Leningrad, No. 2(3), 1965, pp. 117-141.
JPRS 45,242

Complex Antiseptics Based on Pentachlorophenol, by R. E. Fradkova. RUSSIAN, per, Drevesina Yeye Zashchita i Plastiki, 1967, pp 52-63.
ACSI J-4581
ID 2204012268

Birds of the Baltic Region: Ecology and Migrations. RUSSIAN, bk, Ekologiya i migratsii ptits Pribaltiki, 1961.
CFSTI TT 65-50101

Eighth Conference on Age Morphology, Physiology, and Biochemistry, by R.L. Rabinovich, 5 pp.
RUSSIAN, per, Fiziologicheskiy Zhurnal SSSR, Leningrad, Feb 68, pp. 255-256.
JPRS 45,209

Reflex Changes in the Vessels of the Mucosa of the Small Intestine and Activity of the Villi in the Absorption Process, by N. Bannikova. RUSSIAN, per, Fiziol Zh SSSR Sechenov, Vol 48, No 3, 1962, pp 324-330.
HEW NIH
4-26-68

Fifty Years of Soviet Military Medicine, by Lt.Gen. A.S. Georgiyevskiy, 6 pp.
RUSSIAN, per, Gigiyena i Sanitariya, Moscow, No. 3, 1968, pp. 3-7.
JPRS 45,187

Scientific
Biological & Medical Sciences (Contd)

Effect of Industrial Noise on the Arterial Pressure in the Operators in Textile Mills, by A. I. Andrukovich. RUSSIAN, per, Gigiyena Truda i Professional'nyye Zabolevaniya, Vol 9, No 12, 1965, pp 39-42.
ACSI J-2581
ID 2204022667

Hygienic Evaluation of Working Conditions in Argon-Arc Welding of Titanium Alloys, by F.L. Polonskaya, 5 pp.
RUSSIAN, per, Gigiyena Truda i Professional'nyye Zabolevaniya, Moscow, Feb 68, pp. 46-48.
JPRS 45,156

Endothelioma of the Thoracic Portion of the Aorta, by R. E. Kaigorodova, 5 pp.
RUSSIAN, per, Grudn.-Khir., Moscow, Vols 88-90, Jul-Aug 1963.
Dept of Navy/NHS 1243

Primary Productivity of Cuban Coastal Waters, by T.M. Kondrat'yeva and E. Sosa, 17 pp.
RUSSIAN, per, Issledovaniya Tsentral'no-Amerikanskikh Morey, No. 1, Kiev, 1966, pp. 68-80.
JPRS 45,173

Some Data on Phytoplankton of the Gulf of Mexico and Florida Strait, by A.I. Ivanov, 12 pp.
RUSSIAN, per, Issledovaniya Tsentral'no-Amerikanskikh Morey, No. 1, Kiev, 1966, pp. 81-90.
JPRS 45,173

Qualitative and Quantitative Characteristics of Zooplankton of the Cuban Bench, by V.K. Moryakov and A. Kampos, 11 pp.
RUSSIAN, per, Issledovaniya Tsentral'no-Amerikanskikh Morey, No. 1, Kiev, 1966, pp. 92-100.
JPRS 45,173

Preliminary Data on Zooplankton of the Eastern Part of the Gulf of Mexico and the Florida Strait, by A.M. Kolesnikov and A. Alfonso, 7 pp.
RUSSIAN, per, Issledovaniya Tsentral'no-Amerikanskikh Morey, No. 1, Kiev, 1966, pp. 102-106.
JPRS 45,173

Some Characteristics of Induced Variability of Microorganisms, by S. I. Alkhanyan.
RUSSIAN, per, Izvestiya Akad. Nauk SSSR, Seriya Biologicheskaya, No 2, 1967, pp 175-183.
*ACSI J-6787
*FSTC HT-23-35-68

Modern State and Prospects for the Solution of the Problem of the Origin of Life, by I. Oparin.
RUSSIAN, per, Izvestiya Akad. Nauk SSSR, Seriya Biologicheskaya, No 5, 1967, pp 656-668.
*NASA TT F-11,800

The Fiftieth Year of Soviet Biology, 7 pp.
RUSSIAN, per, Izvestiya Akademii Nauk SSSR, Seriya Biologicheskaya, Sept/Oct 67, Moscow, pp. 651-655.
JPRS 45,212

Certain Peculiarities of the Physiological Reactions of Pilots While Imitating a Space Walk, by D.G. Maksimov, et al, 18 pp.
RUSSIAN, per, Izvestiya Akademii Nauk SSSR, Seriya Biologicheskaya, Moscow, Sept/Oct 67, pp. 682-693.
JPRS 45,211

Problem of the Effects of Food of Animal Origin on the Rabbit, by A. I. Ignatovskiy.
RUSSIAN, per, Izv Voenno-med. Akad., Vol 16, No 2, 1968, pp 154-176.
HEW NIH
4-5-68

Pavlovskiy's Theory of Natural Foci of Communicable Diseases, by Yu. Dubrovskiy, 19 pp.
RUSSIAN, per, Khimiya i Zhizn', Moscow, No. 10, 1967, pp. 54-61.
JPRS 45,249

Biological and Medical Cybernetics, by P.K. Anokhin, et al., 52 pp.
RUSSIAN, per, Kibernetika na Sluzhbu Kommunistam, Moscow, 1967, Vol. 5, pp. 214-251.
JPRS 45,476

Staffs of Institutes of Biochemistry and Cybernetics Compared, by Ya. Golovanov, 6 pp.
RUSSIAN, np, Komsomol'skaya Pravda, Moscow, 21 Feb 68, p. 2.
JPRS 45,404

Antarctic Research on Hypothermia Described, by B. Biryukov, 3 pp.
RUSSIAN, newspaper, Krasnaya Zvezda, Moscow, 23 March 68, p. 3.
JPRS 45,139

About the Application of Adrenocorticotrophic Hormone and Hormones of the Supra-renal Cortex for Prophylaxis and Treatment of Shocks and Loss of Blood, by V. K. Kulagin.
RUSSIAN, rpt, Leningrad ANSSSR, Kafedra Patologicheskoy Fiziologii, 1961, pp 120-126.
*FTD-HT-23-538-67

Moral Problems in Contemporary Medicine, by Dr. Nikolay Mikhaylovich Amosov, 9 pp.
RUSSIAN, np, Literaturnaya Gazeta, Moscow, 21 Feb 68, p. 11.
JPRS 45,225

Mathematical Apparatus of Biological Cybernetics, by V. I. Chernysh and A. V. Napalkov, 317 pp.
RUSSIAN, bk, Matematicheskii Apparat Biologicheskoy Kibernetiki, 1964, pp 1-374.
FI00094668-V
FTD-MT-65-163

Medical Geography of Tropical Countries, by S. A. Kovalev.
RUSSIAN, bk, Meditsinskaya Geografiya Tropicheskikh Stran, 1965, 224 pp.
ACSI J-3593
ID 2204050567

Effectiveness of Some New Repellents Against Black Flies, by M. L. Fedder & E. B. Kerabayev.
RUSSIAN, per, Meditsinskaya Parazitologiya i Parazitarnyye Bolezni, No 4, 1962, pp 429-434.
ACSI J-4534
ID 2204011468

The Development of Main Trends in Malariology in the USSR, by Sh. D. Moshkovskiy, et al., 32 pp.
RUSSIAN, per, Meditsinskaya Parazitologiya i Parazitarnyye Bolezni, Vol. 36, No. 6, Nov-Dec 67, pp. 643-663.
JPRS 45,338

The Problem of Helminthiasis and Its Control in the USSR, Part I. Distribution, Epidemiology and Control of Helminthiasis, by V.P. Pod'yapol'skaya, et al, 21 pp.
RUSSIAN, per, Meditsinskaya Parazitologiya i Parazitarnyye Bolezni, Vol. 36, No. 6, Nov-Dec 67, pp. 663-676.
JPRS 45,338

Scientific
Biological & Medical Sciences (Contd)

The Problem of Helminthiasis and its Control in the USSR, Part II. Pathogenesis, Clinical Course, and Therapy of Helminthiasis, Immunity, Physiology of Helminths, and Experimental Chemotherapy, Biochemistry of Helminths, by N.N. Plotnikov, 12 pp.
RUSSIAN, per, Meditsinskaya Parazitologiya i Parazitarnyye Bolezni, vol. 36, No. 6, Nov-Dec 67. pp 677-684.
JPRS 45,338

Some Results of Investigations of Natural Foci of Diseases, by P.A. Petrishcheva, 10 pp.
RUSSIAN, per, Meditsinskaya Parazitologiya i Parazitarnyye Bolezni, Vol. 36, No. 6, Nov-Dec 67. pp 684-691.
JPRS 45,338

Malariological Situation in the World in Connection With the Importation of Malaria Into the USSR. Communication II. Africa, by A. Ya. Lysenko, 12 pp.
RUSSIAN, per, Meditsinskaya Parazitologiya i Parazitarnyye Bolezni, Vol. 36, No. 6, Nov-Dec 67, pp. 737-744.
JPRS 45,338

Investigation of Operation of Automatic Respiratory Valves, by L. I. Nemerovskiy, 12 pp.
RUSSIAN, per, Meditsinskaya Promyshlennost' SSSR, No 9, 1965, pp 13-19. P100088968-V
FTD-MT-67-65

Soluble Toxins of Certain Enterobacteriaceae, by M. N. Yanishevskaya.
RUSSIAN, per, Meditsinskiy Zhurnal Uzbekistana, No 1, 1965, pp 48-50.
*ACSI J-4963
*FSTC-HT-23-69-68

Some Results in the Development of Soviet Industrial Microbiology in the Last 50 Years, by I. L. Rabotnova.
RUSSIAN, per, Mikrobiologiya, Vol 36, No 5, 1967, pp 811-848.
*ACSI J-4415
*FSTC-HT-23-202-68

Multicomponent Cellulolytic Enzymes of Thermotolerant and Mesophilic Fungi Related to *Aspergillus Fumigatus*, by L. G. Loginova and G. Tashpulatov.
RUSSIAN, per, Mikrobiologiya, Vol 36, No 6, 1967, pp 988-992.
*ACSI J-4791
*FSTC HT-23-28-68

Scientific
Biological & Medical Sciences (Contd)

Adaptation of Some Bacteria to Polyvinyl Alcohol Fibers with Anti-Microbial Properties, by I. A. Yermilova.
RUSSIAN, per, Mikrobiologiya, Vol 36, No 6, 1967, pp 1030-1035.
*ACSI J-4890
*FSTC-HT-23-56-68

Efficiency of Different Mechanisms of Transmitting the Causative Agent of Tularemia to Warm Blooded Animals, by Dodes Ticks, RUSSIAN, per, Parazitologiya, Vol 1, No 5, 1967.
*ACSI J-4797
*FSTC HT-23-49-68

Determination of Temporal Correlations of Systolic Phases in Children, by A. A. Galstian.
RUSSIAN, per, Pediatrics, Vol 40, No 7, 1962, pp 49-55.
HEW NIH
4-18-68

Case of Leukemoid Reaction in Child with Recidivous Rheumatic Carditis, by O. P. Zveryayev.
RUSSIAN, per, Pediat Akush Ginek, No 5, 1964, p 32.
HEW NIH
4-6-68

On the Use of Protion Dyes in Microbiology, by M. N. Poglazona.
RUSSIAN, per, Prikladnaya Biokhimiya i Mikrobiologiya, Vol 3, Issue 3, 1967.
*ACSI J-4886
*FSTC-HT-23-162-68

Development of Space Biology and Medicine, by V.V. Parin, 6 pp.
RUSSIAN, journal, Priroda, Moscow, Nov 67, pp. 29-32.
JPRS 45,170

Successes in Controlling Epidemics, by O.V. Baroyan, 14 pp.
RUSSIAN, journal, Priroda, Moscow, Nov 67, pp. 60-69.
JPRS 45,171

Life without Microbes, by G. I. Podoprigara.
RUSSIAN, per, Priroda, No 1, 1968, p 85.
*ACSI J-4819
*FSTC HT-23-115-68

Scientific
Biological & Medical Sciences (Contd)

Heuristics -- Bridge Between Psychology and Physiology, by A.V. Napalkov, 5 pp.
RUSSIAN, per, Priroda, Moscow, No. 2, 1968, pp. 71-73.
JPRS 45,457

Heuristics on the Path to and Artificial Intellect, by Ye. A. Aleksandrov and A.S. Frolov, 5 pp.
RUSSIAN, per, Priroda, No. 2, Moscow, 1968, pp. 76-78.
JPRS 45,457

The Possible Use of Hemoglobin as a Medicinal Preparation, by M. M. Valikina, 12 pp.
RUSSIAN, per, Problemy Gematologii i Perelivaniya Krovi, No 10, 1965, pp 47-54.
ACSI J-4170
ID 2204001768

Forecasting the Productivity of the Herring Fishery on the Lofoten Bank, by V. K. Zilanov and V. G. Genchev.
RUSSIAN, per, Rybnoe Khoz., Vol 44, No 1, 1968, pp 9-11.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

The "Besugo" a New Commercial Species, by N. Tatarnikova.
RUSSIAN, per, Rybnoe Khoz., Vol 44, No 1, 1968, pp 12.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Ways of Increasing the Effectiveness of Pond-fish Culture, by M. Rokosyev.
RUSSIAN, per, Rybnoe Khoz., Vol 44, No 1, 1968, p 18.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Using Isopropyl Alcohol in the Extraction Method for Producing Food Fish Meal, by A.P. Chernogortsev, et al., 6 pp.
RUSSIAN, per, Rybnoye Khozoyatvo, Vol. 44, No. 1, Moscow, 1968, pp. 61-63.
JPRS 45,336

Scientific
Biological & Medical Sciences (Contd)

Change of Characteristics of Defrosted Fishing with Holding, by V. P. Bykov.
RUSSIAN, per, Rybnoe Khoz., Vol 44, No 1, 1968, pp 66-67.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Nutritive Value of Fresh-Frozen Squid, by G. S. Korobkina, E. H. Danilov.
RUSSIAN, per, Rybnoe Khoz., Vol 44, No 1, 1968, pp 68-69.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Prospects for Taking and Processing the Mollusk Leda, by P. Sagunov.
RUSSIAN, per, Rybnoe Khoz., Vol 44, No 1, 1968, p 69.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Dolphins Talk on the Telephone, by Yu. M. Krivtsov.
RUSSIAN, per, Rybnoe Khoz., Vol 44, No 1, 1968, pp 92-93.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Self-Regulation of Higher Nervous Activity, by A. A. Krauklis.
RUSSIAN, per, Samoregulatsiya Vysshay Nervnoy Dejatel'nosti, 1964. P100106368-V
FTD-HT-23-808-67

Use of Higher Plants to Regenerate Food, Water, and Air in Closed Systems, by V.P. Dadykin, 15 pp.
RUSSIAN, per, Sel'skokhozyaystvennaya Biologiya, Moscow, Vol. III, No. 1, 1968, pp. 137-146.
JPRS 45,277

Comparison of Clinical and Immunological Results in the Patients with Typhoid Fever Treated with Levomycetin, by I. V. Rubtsov, 14 pp.
RUSSIAN, per, Sov. Med., Vol 27, 1963, pp 76-82.
Dept of Navy/INS 1259

Scientific
Biological & Medical Sciences (Contd)

Certain Technico-Economic Problems in Hospital Planning, by V.I. Zakharov, 8 pp. RUSSIAN, per, Sovetskoye Zdravookhraneniye, No. 1, Moscow, 1968, pp. 3-7. JPRS 45,434

Optimal Size for Multi-Specialty Hospitals, by M.P. Perepelitsyna, 5 pp. RUSSIAN, per, Sovetskoye Zdravookhraneniye, No. 1, Moscow, 1968, pp. 8-11. JPRS 45,434

Analysis of Prolonged Hospital Treatment, by S.Ya. Freydlin and A.L. Kogan, 5 pp. RUSSIAN, per, Sovetskoye Zdravookhraneniye, Moscow, No. 1, 1968, pp. 11-16. JPRS 45,434

The Problem of Unifying Case Histories, by T.B. Postnova, 6 pp. RUSSIAN, per, Sovetskoye Zdravookhraneniye, Moscow, No. 1, 1968, pp. 16-19. JPRS 45,434

The Use of a Statistical Card for Mechanizing the Analysis of a Hospital's Activities, by Dr. G.D. Chesnokova, et al, 14 pp. RUSSIAN, per, Sovetskoye Zdravookhraneniye, Moscow, No. 1, 1968, pp. 20-28. JPRS 45,434

The Work Experience of Latvian Public Health Organs, by V.V. Kanep and Z. Ya. Dubovitskiy, 5 pp. RUSSIAN, per, Sovetskoye Zdravookhraneniye, Moscow, No. 1, 1968, pp. 31-33. JPRS 45,434

Certain Problems Involved in Training Students in a Therapeutic Department, by Prof. L. D. Sechenova, 7 pp. RUSSIAN, per, Sovetskoye Zdravookhraneniye, No. 1, Moscow, 1968, pp. 34-37. JPRS 45,434

New Forms of Checking on Students' Knowledge, by G.I. Sidorenko and O.E. Goyeva, 5 pp. RUSSIAN, per, Sovetskoye Zdravookhraneniye, No. 1, Moscow, 1968, pp. 38-40. JPRS 45,434

Scientific
Biological & Medical Sciences (Contd)

Programming a System of Check Questions for the Assessment of Educational Information and A Quantitative Analysis of the Results, by N.T. Litovchenko, 10 pp. RUSSIAN, per, Sovetskoye Zdravookhraneniye, No. 1, Moscow, 1968, pp. 41-46. JPRS 45,434

Physical Development as An Indicator of the State of Health of Workers in Mining, by V.F. Shpinev, 10 pp. RUSSIAN, per, Sovetskoye Zdravookhraneniye, No. 1, Moscow, 1968, pp. 47-53. JPRS 45,434

Experience in Organizing Specialized Medical Aid for the Population of an Agricultural Oblast, by M.V. Shvayev, 6 pp. RUSSIAN, per, Sovetskoye Zdravookhraneniye, No. 1, Moscow, 1968, pp. 53-57. JPRS 45,434

Review of Practical Manual on Public Health Organization, by L.S. Sycheva, 6 pp. RUSSIAN, per, Sovetskoye Zdravookhraneniye, No. 1, Moscow, 1968, pp. 85-88. JPRS 45,434

The Bactericidal Properties of Indelible Stains, by L. G. Gusakova, K. S. Viss-Mudretsova, 4 pp. RUSSIAN, per, Tekstilnaya Promyshlennost', No. 4, 1961, pp. 48-49. ACSI J-4248 ID 2204002868

Pulse Frequency Discriminator, by Sh. M. Chabdarov. RUSSIAN, per, Trudy Kazan. Aviatzionnyy Institut. Raboty Aspirantov, No 92, 1966, pp 62-65. *FTD HT-24-206-68

Automatic Analysis of Microscopic Particles, by Valentina Leonidovna Kaya & Lyudmila Vovnal Shikhamatova. RUSSIAN, per, USSR Energiya. *Dept of Navy NIC

Immunogenic Properties of Absorbed Diphtheria Antoxins, by A. A. Vorobyev, and S. V. Chobotareva. RUSSIAN, per, Vaktsiny i Svyazetki Materialy po Proizvodstvu, No 6, 1966, pp 92-106. *ACSI J-4821 *FTC HT-23-47-68

Scientific
Biological & Medical Sciences (Contd)

Role of the Pike Perch (*Lucioperca lucioperca*.)
In Biological Melioration of Lake Aral,
by Yu. D. Novokshonov, 10 pp.
RUSSIAN, per, Voprosy Ikhtologii, Moscow,
No. 2, 1967, pp. 247-252.
JPRS 45,411

Quantitative Determination of the Hyaluronic
Acid and Chondroitin Sulfates A and C in Blood
Serum, by N. A. Andreyev.
RUSSIAN, per, Vop Med Khim, Vol 11, No 6, 1965,
pp 72-75.
HEW NIH
4-13-68

Some Problems in the Technique of Water Preparation
for Large-Scale Production of Tissue Culture Virus
Vaccines, by G. M. Gnuni & G. Malygina.
RUSSIAN, per, Voprosy Virusology, No 5, 1965,
pp 614-618.
ACSI J-4035
ID 2204061867

First Aid in Contaminated Zones, by V. Shokun.
RUSSIAN, per, Voennoye Znaniya, No 6, 1967,
pp 24-25.
*ACSI J-4824
*FSTC HT-23-122-68

Protection of Respiratory Organs and of Skin,
by V. Danilyuk.
RUSSIAN, per, Voennoye Znaniya, No 1, 1968,
pp 20-21.
ACSI J-4456
ID 2204008868

Financing of Kazakh SSR Health Services,
by N. Sansyzbayev, 8 pp.
RUSSIAN, per, Zdravookhraneniye Kazakhstana,
Alma-Ata, No. 2, 1968, pp. 15-18.
JPRS 45,261

Dynamics of the H and O Agglutinins Titers in
Patients with Typhoid Fever, Treated with
Levomycesin and Antibiotics, in Combination
with Vaccine, by P. A. Aliyev, 11 pp.
RUSSIAN, per, Zhur. Mikrobiol., Epidem. i
Immunologii, Vol 41, 1964, pp 36-41.
Dept of Navy/US 1258

Effect of Zymosan on Natural, Passive and Active
Immunity to Toxins of Gas Gangrene and Tetanus
Agents, by N. F. Kalinichenko.
RUSSIAN, per, Zhurnal Mikrobiologii, Epidemi-
ologii i Immunologii, No 8, 1967, pp 129-130.
*ACSI J-4782
*FSTC HT-23-23-68

Scientific
Biological & Medical Sciences (Contd)

Stabilization of Vaccine Preparations in the
Process of Drying and Storage, by M.M.
Faybich, 12 pp.
RUSSIAN, journal, Zhurnal Mikrobiologii,
Epidemiologii i Immunologii, Moscow,
No. 2, 1968, pp. 59-66.
JPRS 45,160

Effect of Pre-Immunity to Tularemia and Bru-
cellosis on EB Inoculation Injected as Part
of a Triple Vaccine, by V.G. Pilipenko, 5 pp.
RUSSIAN, journal, Zhurnal Mikrobiologii
Epidemiologii i Immunologii, Moscow,
No. 2, 1968, pp. 101-104.
JPRS 45,366

The Acoustic Orientation of Birds, by
V.D. Il'ichev, 21 pp.
RUSSIAN, per, Zoologicheskii Zhurnal,
Moscow, Dec 67, pp. 1741-1756.
JPRS 45,064

Radiotelemetry in Animal Ecology, by V. Ye.
Sokolov and N.S. Stepanov, 17 pp.
RUSSIAN, journal, Zoologicheskii Zhurnal,
Feb 68, Moscow, pp. 173-186.
JPRS 45,365

Some Problems in Pharmacy Construction,
Reorganization and Equipping, by N. Popov
and V. Grozdanova, 8 pp.
BULGARIAN, per, Farmatsiya, No. 1,
Bulgarian, Jan 68, Sofia, pp. 62-67.
JPRS 45,448

Technical Progress in Food Industry, 7 pp.
BULGARIAN, per, Khranitelna Promishlenost,
Sofia, Jan-Feb 68, pp 1-3.
JPRS 45,250

The Biological Secrets of the Sargasso Sea,
by N. Iovchev.
BULGARIAN, per, Prizda, No 5, Sep-Oct 1967,
pp 111-116.
*ACSI J-4849
*FSTC HT-23-107-68B

Strontium-90 and Cesium-137 Content of
Some Bulgarian Food Products, by D. Kashev,
6 pp.
BULGARIAN, per, Rentsenologiya i Radiologiya,
Sofia, Vol. 5, No. 1, Feb 68, pp. 10-13.
JPRS 45,477

Scientific
Biological & Medical Sciences (Contd)

Introducing a Pistol-Type Vaccination Injector for Pigs.
CHINESE, per, Nung-Yeh Chi-Shu, No 9, 1964, p 43.
*ACSI J-4845
*FSTC HT-23-130-68

Another Improvement on the Pistol-Type Vaccination Injector for Pigs.
CHINESE, per, Nung-Yeh Chi-Shu, No 9, 1964, p 44.
*ACSI J-4844
*FSTC HT-23-128-68

The Method of Inoculating Pigs Without Getting Hold of Them.
CHINESE, per, Nung-Yeh Chi-Shu, No 10, 1964, pp 46-68.
*ACSI J-4843
*FSTC HT-23-129-68

Some Understanding of the Improvements and Usage of the Rifle Type of Anti-Hog Plague Injector.
CHINESE, per, Nung-Yeh Chi-Shu, No 10, 1964, pp 49-51.
*ACSI J-4842
*FSTC HT-23-127-68

Investigation of Percutaneous Exposure to Organo-Phosphorous Insecticides. Determination of Biological Activity of Compounds, by E. Hendrichova, 10 pp.
CZECH, per, Bratislavské Lekárske Listy, 48, No. 4, Aug 67, pp. 243-249.
JPRS 45,451

Biological Protection of Wood in Mines - An Experiment, by A. Prihoda.
CZECH, per, Ceska Mykologie, Vol 19, No 3, 1965, pp 175-179.
ACSI J-4363
ID 2204006468

Certain Sensations, Similar or Identical to In-flight Sensations, Produced Artificially in Simulated Pilot Cockpit Through Inducement of Vestibular Organ, by V. Malcik.
CZECH, per, Institute of Aviation Medicine, Prague, pp 228-237.
Dept of Navy NIC tr 2591

Scientific
Biological & Medical Sciences (Contd)

Effect of Freezing Speed on Bacteriological Conditions of Food Products, by J. Arpai & J. Tomisova.
CZECH, per, Prumysl Potravin, No 11, 1967, pp 567-569.
ACSI J-4322
ID 2204004768

Cat Scratch Fever, 5 pp.
DUTCH, per, Bilg. T. Genesh., Vol 21, 15 Oct 1965, pp 975-978.
*Dept of Navy/NIS 1263

Reproduction of the Decapod Crustaceans of the Penaeid Family, by Jeanne H. Heldt, 176 pp.
FRENCH, per, Annales de L'Institut Oceanographique, Vol 18, 18 Oct 1968, pp 31-206.
*CFSTI TT 68-50079

Application of the Immunofluorescence Technique to the Diagnosis of Pneumopathy due to Eaton's Mycoplasma, by J. Thivolet.
FRENCH, per, Ann Inst Pasteur (Paris), Vol 105, 1963, pp 749-756.
HEW NIH
4-25-68

Demonstration in Quail Embryonic Cell Cultures of a Latent, Cytopathogenic Virus Turmoigenic for Quail and Chicken. Relations Between this Virus and the Rous Sarcoma Virus, by Y. De Ratuld.
FRENCH, per, Ann Inst Pasteur (Paris), Vol 113, No 5, 1967, pp 749-755.
HEW NIH
4-14-68

Operational Aspects in Deep Diving, by X. R. Fructus, 21 pp.
FRENCH, rpt, Aspects Operationnels de la Plongee Profonde, May 1967.
*Dept of Navy/NIS 1270

Exogenous Agents Endowed with Carcinogenic Effect on Man: Environmental Carcinogenesis and Occupational Carcinogenesis, by C. Maltoni.
FRENCH, per, Bull Sci Med (Bologne), Vol 136, No 2, 1964, pp 135-143.
HEW NIH
4-30-68

Non Esterized Fatty Acids in Diabetes: A Comparative Study of Titrimetry and Colorimetry, by H. Warenbourg, 5 pp.
FRENCH, per, Clin. Chim. Acta, Vol 14, 1966, pp 708-710.
Dept of Navy/NIS 1255

Scientific
Biological & Medical Sciences (Contd.)

Specificity of the Rates of Non Esterized Fatty Acids in the Hovak Colorimetric Method, by J. Parijs, 3 pp.
FRENCH, per, Clin. Chem. Acta, Vol 14, 1966, pp 713-714.
Dept of Navy/NMS 1262

Effects of Ultraviolet Irradiation on Lymphocytes. Inhibition of the Incorporation of Uridin, by J. Binet.
FRENCH, per, C R Acad Sci (D) (Paris), Vol 265, 1967, pp 173-176.
HEW NIH
4-27-68

Urinary Elimination of Catecholamines in Long-Evans Male Rats During Adaptation to Various Temperatures, by R. Bertin.
FRENCH, per, C R Soc Biol (Paris), Vol 161, No 2, 1967, pp 248-251.
HEW NIH
4-36-68

Research Concerning the Effect and Behavior of Projectiles in Models Simulating Living Matter, by J. P. Rigaud.
FRENCH, rpt, Franco-German Research Institute, St Louis France Note N 36/65, 31 Dec 1965.
*ACSI J-4904
*FSTC-HT-23-155-68A

Symptoms, Diagnosis and Treatment of Bone Cysts, by J. M. Thomine, 7 pp.
FRENCH, per, Gaz. Med. France, Vol 69, 25 Sept 1962, pp 2575-2578.
Dept of Navy/NMS 1247

The Electroencephalogram of Nocturnal Sleep in the Baboon, by J. Bert.
FRENCH, per, J Physiol (Paris), Vol 53, No 3, 1966, pp 285-301.
HEW NIH
4-4-68

Experimental Attempts at Valvular Vein Graft with Suspended Anastomosis According to the Kurlin Technique, by R. Devin, 9 pp.
FRENCH, per, Marseille Chir., Vol 16, No 3, May-June 1964, pp 179-186.
*Dept of Navy/NMS

Time of Passage in the Thoracic Duct of the Blood Lymphocytes of Chronic Lymphoid Leukemia, by J. Binet.
FRENCH, per, Nouv Rev Franc Hemat, Vol 7, No 3, 1967, pp 621-624.
HEW NIH
4-28-68

Biological & Medical Sciences (Contd.)

Effects of the Method of Reinduction in the Course of the Treatment of Acute Lymphoblastic Leukemias, by C. Jacquillat.
FRENCH, per, Nouv Rev Franc Hemat, Vol 7, No 5, 1967, pp 677-682.
HEW NIH
4-32-68

Promotion 1967, 6 pp.
FRENCH, rpt, Programme de l'ecole de Sante Navale, 6 pp, 23 Mar 1968.
*Dept of Navy/NMS 1271

Molecular Biology, Biological Control.
FRENCH, per, Le Progres Scientifique, No 109, June 1967, pp 69-70.
ACSI J-4307
ID Incl to 2832022167

Extracorporeal Enzyme Therapy, by G. H. Hitchings.
FRENCH, per, Rev Franc Etudes Clin Biol Preprint.
HEW NIH
4-7-68

Preliminary Notes on the Action of Morphine Invariable Doses on the E.E.G. Tracing, by J. Schneider.
FRENCH, per, Rev Neurol (Paris), Vol 81, 1949, pp 512-513.
HEW NIH
4-12-68

Electroencephalographic Study of Epilepsies with a Morphean Structure, by P. Delmas-Marsalet.
FRENCH, per, Rev Neurol (Paris), Vol 82, 1950, pp 546-559.
HEW NIH
4-21-68

Medical Service in Indochina 1945-1954. Part 1 - Organization and Function of the Medical Service.
FRENCH, bk, Le Service de Sante en Indochine, 1945-1954, pp 1-330.
*ACSI J-5020
ID 220404468

Medical Service in Indochina 1945-1954. Part 3 - Military Surgery.
FRENCH, bk, Le Service de Sante en Indochine, La Chirurgie de Guerre, Troisieme Partie, 1945-1954, pp 331-685.
*ACSI J-5022
ID 2204014668

Medical Service in Indochina 1945-1954. Part 4 - Hygiene and Epidemiology.
FRENCH, bk, Le Service de Sante en Indochine, Hygiene et Epidemiologie, Quatrieme Partie, 1945-1954, pp 691-949.
*ACSI J-5021
ID 2204014568

Structural Elements of Stabilization of Macromolecules, by C. Velican.
FRENCH, per, Stud Cercet Med Intern, Vol 8, No 2, 1967, pp 113-124.
HEW NIH
4-24-68

An Essay on the Role and Functioning of the Triage Company and Treatment by the Medical Battalion of the Division of Infantry, by Robert Vialletel, 9 pp.
FRENCH, Thesis, 1945-1946
Dept of Navy, NMS 1257

Study of the Oral Glands of Ophidia, by L. Arvy.
FRENCH, per, Toxicol, Vol 5, 1967, pp 79-83.
HEW NIH
4-31-68

Electroencephalogram in Man. Report VIII, by H. Berger.
GERMAN, per, Arch Psychiat Nervenkr, Vol 101, 1933/1934, pp 452-469.
HEW NIH
4-9-68

Electroencephalogram in Man. Report XIII, by H. Berger.
GERMAN, per, Arch Psychiat Nervenkr, Vol 106, 1937, pp 577-584.
HEW NIH
4-8-68

Effect of Muscular Exertion and Unilateral Occlusion of the Stress of the Cardiopulmonary, by Z. J. Vyslouzil.
GERMAN, per, Beitrage zur Klinik der Tuberkulose, Vol 131, 1965, pp 375-381.
*NASA TT F-11,804

V. The Light Microscopic Picture of the Histogenesis and Cytogenesis of Liver Carcinoma Produced by Diethylnitrosamine in Rats, by E. Grundmann.
GERMAN, per, Beitr Path Anat, Vol 126, 1962, pp 57-90.
HEW NIH
4-10-68

Studies on Intrauterine and Extrauterine Transmission of Antitoxin from Mother to Offspring, by Roemer.
GERMAN, per, Berlin Klin Woch, Vol 38, No 46, 1901, pp 1150-1157.
HEW NIH
4-33-68

Pure Preparation of Factors V and VIII, by H. Schwick.
GERMAN, per, Blut, Vol 16, 1967, pp 150-156.
HEW NIH
4-29-68

An Investigation of Endemic Goiter in the Magdeburg Region, by P. Ernst.
GERMAN, per, Dtsch Gesundh, Vol 22, No 39, 1967, pp 1825-1828.
HEW NIH
4-38-68

The Various Aspects of the Secondary Syndrome that Complicate Allogenic Transfusions of Bone Marrow or of Leukocytes in Patients Afflicted with Malignant Hemopathies, by G. Mathe.
GERMAN, per, Europ J Cancer, Vol 1, 1965, pp 75-113.
HEW NIH
4-3-68

The Reception of Information by Biological Receptors. Part I. Theoretical Investigations of the Cause for the Formation of Excitation, by E. Zerbst & K. H. Dittbarn.
GERMAN, per, Kybernetik, Vol 2, No 4, 1965, pp 160-168.
Dept of Navy/APL/JHU T-2043

The Acute and Chronic Stress Syndrome, by Ulrich Venzlaff.
GERMAN, per, Medizinische Welt, Vol 8, 1966, pp 369-376.
*NASA TT F-11,787

Treatment of Hodgkin's Disease by a Polychemotherapy Combining Nitrogen Mustard, Vincristine, Methylhydrazine and Prednisone, by J. M. Bernard.
GERMAN, per, Presse Med, Vol 75, No 52, 1967, pp 2647-2649.
HEW NIH
4-20-68

Fungicidal Materials, by J. Nemcova.
GERMAN, per, Die Technik, No 2, 1968, pp 83-86.
*ACSI J-4839
*FSTC NT-23-138-68

Preservation of Technical Products, by C. Pelli.
GERMAN, per, Die Klimate, Vol 22, No 6, 1967,
pp 237-242.
*ACSI J-4823
*FSTC HT-23-121-68

Treatment of Open Wounds by Insolation and
Desiccation (Including a Few Remarks Relating
to Climatic Influences of High Mountains), by
Oscar Bernhard, 7 pp.
GERMAN, per, Ueber offene Wundbehandlung durch In-
solation und Eintrocknung (zugleich Einiges uber
Klimatische Einflusse des Hochgebirges).
P500091768
Dept of Navy NIC tr 2585

The Curability of Lymphogranulomatosis, Judged
on the Basis of the Results of Treatment at the
Freiburg Hospital, by K. Misshof.
GERMAN, per, Verh Dtsch Ges Inn Med, Vol 73,
1967, pp 322-329.
HEW NIH
4-11-68

Manual on West German Portable Field Dental
Equipment.
GERMAN, rpt, Vorlaeufige Gebrauchsanweisung Fuer
Zahnärztliches Geraet Feld In 10 Kasten,
Apr 1962.
*ACSI J-4932
ID Incl to 2252018268

The Procedures for the Testing of Teratogenic
Effects Take Shape, by P. Kuehne.
GERMAN, per, Z Aerzt Fortbild (Jena), Vol 54,
No 1, 1965, pp 13-18.
HEW NIH
4-22-68

Phage Receptor Synthesis through the Stable L.
Form of Proteus Mirabilis VI, by F. Zickler.
GERMAN, per, Zeitschrift fuer Allgemeine Mikro-
biologie, Vol 7, No 4, 1967, pp 283-286.
*ACSI J-4909
*FSTC-HT-23-34-68

Clinical and Hereditary-Biological Contribution
to Constitutional Pathology. The Joint Occurrence
of (Recurring Familial) Paralysis of the Facialis,
Angioneurotic Facial Edema and Lingua Plicata in
Families with Arthritis, by C. Rosenthal.
GERMAN, per, Z Ges Neurol Psychiat, Vol 131,
1931, pp 475-501.
HEW NIH
4-1-68

Operation of the Pharmaceutical Research
Institute, by Laszlo Vargha, 14 pp.
HUNGARIAN, journal, Magyar Kozlonyok Lapja,
Budapest, No. 2, 1968, p. 54.
JPRS 45,162

Veterinary Agreement Between Hungary and
Rumania, 18 pp.
HUNGARIAN, per, Magyar Kozlony, Budapest,
13 March 68, pp. 258-268.
JPRS 45,315

Resistance of Plastic to Tropical Biological
Damage Factors, by Maria Irik-Farkas.
HUNGARIAN, per, Mianvag es Gumi, Vol 4, No 3,
1967, pp 77-80.
*ACSI J-4973
*FSTC-HT-23-186-68

Dynamics of Total Proteinemia, Electrophoretic
Fractions, Gamma Globulin and Titer of Anti-
bacterial Agglutinins in Clinical Pertussis, by
D. Wiedermannova.
HUNGARIAN, per, Scr Med Fac Med Masarykianae,
Vol 34, No 5, 1961, pp 183-198.
HEW NIH
4-23-68

Colliquative Amoebic Hepatitis with Secondary
Lung Abscess. Combined Chloroquine-Emetine
Treatment. Hoaling., 15 pp.
ITALIAN, per, Acta Med. Ital. di Med. Trop. e
Subtrop., Vol 18, 1963, pp 267-272.
*Dept of Navy/N.S 1268

Oral Florid Papillomatosis: Its Treatment with
Methotrexate, by A. R. De Kaminsky.
ITALIAN, per, G Ital Derm, Vol 107, 1966,
pp 821-836.
HEW NIH
4-16-68

Impotentia Coeundi as a Complication in Pelvic
Fractures, by Ugo de Santis, 6 pp.
ITALIAN, per, Gazz. Int. Med. Chir., Vol 69,
15 Jul 1964, pp 1213-1217.
Dept of Navy/NS 1244

The Influence Exercised by Sex Hormones on the
Structure of the Taste-Organ Formations of the
Rattus Albimus, by E. Allra.
ITALIAN, per, Riv Biol, Vol 44, 1952, pp 209-226.
HEW NIH
4-17-68

A Study of the Mechanism of the Perception of the Vertical, by A. Bertoni.
ITALIA, per, Riv Psicol., Vol 57, No 1, 1966,
pp 1-35.
HEW NIH
4-2-68

The Effect of the Vertical Position on the Perception of the Vertical, by A. Bertoni.
ITALIA, per, Riv Psicol., Vol 57, No 1, 1966,
pp 1-35.
HEW NIH
4-2-68

Special Report on the Overwintering and Over-
summering of the Cereal Grass Stripe Rust Patho-
genic Fungi and the Primary Sources of Infection:
Researches on the Overwintering, Overwintering,
and Source of Primary Infection of Stripe Rust
in wheat and Barley, 583 pp.
JAPANESE, bk, 451 pp.
ACSI J-3383-A
ID 2222183066

Swalbard Development or Stagnation, by
G. S. Federsen, 14 pp.
GRIGIAN, per, Lorsk Military Vidskrift,
1966, pp 1-3.
DIA LI 681-69

Difference Between Male and Female Skin Tempera-
ture of fingers Immersed in Cold Water, by
M. Tachi.
JAPANESE, per, Igaku to Seibutsugaku, Vol 73,
No 10, 1966, pp 193-197.
*NASA TT F-11,790

Considerations Concerning Medical-Hygiene and
Antiepidemiological Protection for the Strike
Zone of Biological Weapons Strike, by
Zbigniew Jaworski, 4 pp.
POLISH, per, Department of Hygiene and Epidemiology
of the Military Medical Academy, Lekarz Wojskowy,
No 9, 1966, pp 773-775. P500092668
Dept of Navy NIC tr 2590

Penetration of Embedding Media into Specimens,
by H. Kushida.
JAPANESE, per, J Electron Micr (Tokyo), Vol 13,
No 2, 1964, pp 107-109.
HEW NIH
4-39-68

Optokinetic (Railroad) Nystagmus and its Applica-
tion in Neurology, by Wiktor Arkin, 24 pp.
POLISH, per, Klinika Oczna, No 4, pp 191-202.
P500092568
Dept of Navy NIC tr 2589

Dissolution of Barium Sulphate by Means of Ion
Exchange Resins, by M. Honda, et al. 3 pp.
JAPANESE, per, Nippon Kagaku Zasshi, Vol 75,
No. 5, 1952, pp 348-349.
AEC LB/G/2542

Small and Large Plaques Forming Variant of EEE
Virus Isolation of Variants M and D.
POLISH, per, Medycyna Doswiadczenia i Mikrobi-
ologia, Vol 19, No 4, 1967, pp 363-366.
*ACSI J-4620
*FSTC HT-23-94-68

Kinetic Studies of Bilirubin Metabolism, by
Y. Araki.
JAPANESE, per, Nippon Rinsho, Vol 24, 1966,
pp 1002-1009.
HEW NIH
4-15-68

Small and Large Plaques Forming Variants of
EEE Virus Biological Properties of M and D
Variants, by M. Katoch.
POLISH, per, Medycyna Doswiadczenia i Mikro-
biologia, Vol 19, No 4, 1967, pp 367-371.
*ACSI J-4620
*FSTC HT-23-94-68

Arthritis in Humans and PPLD, by M. Arai.
JAPANESE, per, Nippon Seikeigeka Gakkai Z.
Vol 38, 1964, pp 691-692.
HEW NIH
4-37-68

A Case of Kasabach and Merritt Syndrome, by
Henry Flocq, 5 pp.
POLISH, per, Pediatrica Polanka, Vol XL, No 12,
1965, pp 1409-1412.
Dept of Navy/NIS 1246

A Case of Multiple Chondroma with Multiple
Hemangiomas (Maffucci's Syndrome), by
H. Hanaka.
JAPANESE, per, Rinsho Geka, Vol 16, No 1, 1961,
pp 97-101.
HEW NIH
4-19-68

The Effect of Detreosycin on Dynamics of Widal
Test in the Treatment of Typhoid and Paratyphoid
Fever, by Caslaw Jezyna, 8 pp.
POLISH, per, Przegląd Epidemiol., Vol XX, 1966,
pp 17-23.
*Dept of Navy/NIS 1269

Scientific
Biological & Medical Sciences (Contd)

At the Beginning of Existence - Atom and Eve,
by Wojciech Kozlowski.
POLISH, per, Zolnierz Wolnosci, No 10 (5326),
12 Jan 1968.
*ACSI J-4906
*FSTC-HT-23-37-68

Serological Diagnosis of Brucella in Cattle,
by Dr. S. Haroviuc and Dr. A. Hrapciuc,
7 pp.
RUMANIAN, journal, Revista de Zootehnie si
Medicina Veterinara, Bucharest, No. 10,
1967, pp. 36-41.
JPRS 45,159

Distribution on Density in the Stem of Quercus
Sessiliflora, by S. Todorowski.
SERBO-CROATIAN, per, S. Godishen Zbornik na
Zemjodelsko - Shumarskiot Fakultet na Univerzitetot
Skopje, No 14, 1960-1961, pp 79-106.
*CFSTI TT 68-50101

A Study of the Wool of Breeds and Varieties
of Sheep in Macedonia, by S. Smilevski.
SERBO-CROATIAN, per, Godishen Zbornik
Zemjodelsko-Shumarskiot Fakultet na Univerzitetot
Skopje, Zemjod, Vol 16 (1962-63), 1963, pp 317-
343.
*CFSTI TT 68-50071

The Nutrition of the School Child, His Health
and the Role of Social Organizations in His
Nourishment, by M. Rupena-Osolnik et al,
18 pp.
SERBO-CROATIAN, per, Hrana i Ishrana, Belgrade,
Jan 68, pp. 54-64.
JPRS 45,448

Occupational Toxic-Irritative Dermatitis
Caused by "Radosan", by Svetislav Cvejic.
7 pp.
SERBIAN, per, Medicinski Pregled, Novi
Sad, No. 7-8, 1968, pp. 321-324.
JPRS 45,416

Certain Biological and Biochemical Aspects
of the Use of Ionizing Radiation in Immuniza-
tion Against Parasitic Diseases, by Milovan
Jovanovic, 11 pp.
SERBO-CROATIAN, per, Spomenica u Cast
Novoizabranih Clanova Srpske akademije
Nauka i Umetnosti, Belgrade, 1967,
pp. 113-121.
JPRS 45,305

Scientific
Biological & Medical Sciences (Contd)

The Effect of Artificial Insemination on the
Number and Sex of the Lambs, by N. Mitic.
SERBO-CROATIAN, per, Stocarstvo, Vol 15, Nos 3-4,
1961, pp 175-180.
*CFSTI TT 68-50068

A Study on Fertility, Milk Production and Other
Productive Characters of Tsigai Sheep, by
D. Trajic.
SERBO-CROATIAN, per, Stocarstvo, Vol 16, Nos. 7-8,
1962, pp 310-319.
*CFSTI TT 68-50069

The Induction of Oestrus in Ewes During Anoestrus
by the Combined Use of Sex Hormones and
Gonadotropin, by M. Varadin & L. Nesic.
SERBO-CROATIAN, per, Veterinaria, Vol 13, No 1,
1964, pp 29-42.
*CFSTI TT 68-50067

A Contribution to the Study of the Annual Sexual
Rhythm of Domestic Sheep with Special Regard to
the Effect of Macroclimatic Factors. II. Some
Ovarian Functions and Macroclimatic Factors, by
H. Lokvancic.
SERBO-CROATIAN, per, Veterinaria, Vol 13, No 1,
1964, pp 99-106.
*CFSTI TT 68-50066

The Effect of Some Diluents on the Spermatozoal
Vitality of Ram Semen in Vitro, by M. Varadin
& A. Pavlovic.
SERBO-CROATIAN, per, Veterinaria, Vol 13, No 3,
1964, pp 337-342.
*CFSTI TT 68-50070

Trials with Oestrogen in the Fattening of Lambs,
by B. Palian.
SERBO-CROATIAN, per, Veterinaria, Vol 13, No 3,
1964, pp 343-356.
*CFSTI TT 68-50072

The Inactivation of Genus Miyagawanellae
Microorganisms With the Use of Chloramine
Group Chemicals (1), by Dr. Z. Foresek et al.,
5 pp.
SERBO-CROATIAN, per, Veterinarski Glasnik,
Sarajevo; Belgrade, No. 2, 1968,
pp. 87-90.
JPRS 45,275

Information on Veterinary Conferences in 1968,
9 pp.
SERBO-CROATIAN, per, Veterinarski Glasnik,
Belgrade, No. 2, 1968, pp. 137-142.
JPRS 45,263

Scientific
Biological & Medical Sciences (Contd)

The Law on the Veterinary Service in Macedonia, 17 pp.
SERBO-CROATIAN, per, Veterinarski Glasnik, No. 2, 1968, pp. 142-149.
JPRS 45,263

The Prevention and Eradication of Livestock Infections in the Army in Modern Warfare (1), by V. Turudic, 9 pp.
SERBO-CROATIAN, per, Veterinarski Glasnik, Belgrade, No. 3, 1968, pp. 153-158.
JPRS 45,340

Developments in Yugoslav Veterinary Medicine, 9 pp.
SERBO-CROATIAN, per, Veterinarski Glasnik, Belgrade, No. 3, 1968, pp. 220-226.
JPRS 45,340

Radiological Decontamination of Clothing, by Capt. Stevo Tomic, 6 pp.
SERBO-CROATIAN, per, Vojnoekonomski Pregled, Belgrade, Feb 68, pp. 119-122.
JPRS 45,081 (Errata)

Clinical and Experimental Studies on Venous Grafts, by Juro Wada, 6 pp.
SPANISH, per, Acad. Poru Cir., Vol 16, Mar 1964, pp 425-428.
*Dept of Navy/INS 1267

Studies of Agglutinine Curves in Typhoid Patients, Treated with Chloramphenicol, by Lilly Entepara Erazo, 15 pp.
SPANISH, per, Rev. Equad. Hig. Med. Trop., Vol 21, No 2, 1964, pp 23-35.
Dept of Navy/INS 1260

Cheaper Milk in Plastic Bags.
SWEDISH, per, Plastvarlden, No 10, 1967, p 71.
ACSI J-4243
ID 2204002568

Milk Containers in Norway, by Arne Killingstad.
SWEDISH, per, Plastvarlden, No 10, 1967, p 72.
ACSI J-4243
ID 2204002568

Viet Cong Medical Manual; Bacteriology.
VIETNAMESE, rpt, VI Trung, pp 78-90.
*ACSI J-4917
ID Incl to 2222081967
*FSTC-HT-23-178-68

Scientific
Chemistry

Economics of Desalination, by G.M. Solov'yev, 9 pp.
RUSSIAN, per, Atomnaya Energiya, Moscow, Feb 68, Vol. 24, No. 2, pp. 123-128.
JPRS 45,389

On the Thickening of Low Viscosity Lubricating Oils by Low Molecular Polypropylene, by D. A. Akhmedzade.
RUSSIAN, per, Azerbaydzanskiy Khimicheskiy Zhurnal, No 4, 1965, pp 3-5.
ACSI J-3881
ID 2204057667

Reaction of Ethylene Glycol Monoalkyl Ethers with Phosphorus Pentasulfide, by A. M. Kuliyeu, Z. A. Alizade.
RUSSIAN, per, Azerbaydzanskiy Khimicheskiy Zhurnal, No 6, 1965, pp 10-13.
*FTD-HT-67-76

The Properties of Purified Serratia Marcescens DNAase and Its Action on DNA, by I. B. Leshchinskaya.
RUSSIAN, per, Biokhimiya, Vol 32, No 1, 1967, pp 93-98.
ACSI J-4597
ID 2204013068

Properties of New Cholinesterase Reactivators Among the Oxyaminoacetic Acid Series, by Ye. K. Balashova, et al, 8 pp.
RUSSIAN, per, Biokhimiya, Moscow, Jan-Feb 68, pp. 29-33.
JPRS 45,447

Preparation and Properties of Clostridium Perfringens Lecithinase, by G.F. Shemanova, et al, 12 pp.
RUSSIAN, per, Biokhimiya, Moscow, Jan-Feb 68, pp. 130-135.
JPRS 45,447

A Method of Regulating the Frequency Temperature Characteristics of Crystal-Control Resonators, by F. G. Vasin & P. G. Pozdnyakov.
RUSSIAN, rpt, Description of Invention No 187092 Opisanie Isobreteniya, 15 Nov 1966, pp 1-3.
*ACSI J-4913
*FSTC-HT-23-64-68

Scientific
Chemistry (Contd)

Thermal Decomposition of Ag_2SO_3 , by M. P. Gilevich.
RUSSIAN, per, Doklady Ak Nauk BSSR, No 4, 1960, pp 342-346.
*NASA TT F-11,796

Multiphoton Excitation of Organic Molecules, by A.M. Prokhorov, 6 pp.
RUSSIAN, per, Doklady Akademii Nauk SSSR, Moscow, Vol. 175, No. 4, 1967, pp. 793-796.
JPRS 45,377

Electrochemistry of Molten and Solid Electrolytes, Vol 12 and 13.
RUSSIAN, bk, Elektrokhimiya rasplavlennyykh Solevyykh i Tverdykh Elektrolitov Vyp 12 and 13, 1968.
Plenum Press

Some Problems of Thermodynamics of Non-Ideal Chemically Reacting Gas Mixtures, by A. M. Semenov.
RUSSIAN, per, Inzh.-Fiz. Zhurnal, Vol 13, No 6, 1967, pp 789-797.
*Dept of Navy/APL/JHU J-1163

Probable Trends of Evolution in the Steady-State Irreversible Processes, by A. A. Filyukov & V. Ya. Karpov.
RUSSIAN, per, Inzh.-Fiz. Zhurnal, Vol 13, No 6, 1967, pp 798-804.
*Dept of Navy/APL/JHU J-1164

Fiber Chemistry.
RUSSIAN, bk, Khimicheskiy Volokna, 1968.
Plenum Press

Electrochemical Processes in Electrodeposition and Anodic Dissolution.
RUSSIAN, bk, Khimiya, Supplement to Journal Soviet Electrochemistry (Elektrokhimiya), 1969.
Plenum Press

Electrochemical Processes Involving Organic Substances.
RUSSIAN, bk, Khimiya, Supplement to Journal Soviet Electrochemistry (Elektrokhimiya), 1969.
Plenum Press

Investigations in the Area of Imidazole Derivatives, by L.S. Efros, et al, 5 pp.
RUSSIAN, per, Khimiya Geterotsiklicheskikh Soyedineniy, Riga, No. 2, 1967, pp. 336-338.
JPRS 45,375

Scientific
Chemistry (Contd)

Corrosional and Electrochemical Behavior of Titanium and Its Alloys in Wet-Process Phosphoric Acid, by V. V. Andreyeva, V. I. Kazarin.
RUSSIAN, per, Korroziya Metallov i Splavov, No 2, 1965, pp 136-147. F100077768-V
FTD-MT-24-99-67

Preliminary Data on a Field Trial of a New Repellent, Piperidilamid M-Tolual Acid, by L. V. Ivanova & V. I. Stavrovskaya.
RUSSIAN, per, Meditainskaya Parazitologiya & Parazitarnyye Bolezni, No 3, 1966, pp 320-323.
ACSI J-4531
ID 2204011168

On Fungicidal Activity of Some Aromatic Dichloroacetamide Derivatives, by G. Khashin, et al.
RUSSIAN, per, Mikrobiologiya, Vol 26, No 6, 1967.
*ACSI J-4792
*FSTC HT-23-29-68

Research on the Nature of the Chemical Bond in Aluminides of Certain Transition Metals, by G.V. Samsonov, and V.S. Sinel'nikova, 13 pp.
RUSSIAN, per, Neorganicheskiye Materialy, Vol. 1, Moscow, No. 7, 1965, pp. 1071-1078.
JPRS 45,385

Organization of the Pharmaceutical Service, by M. M. Lytvynenko and I. M. Hubs'kyi, 741 pp.
RUSSIAN, bk, Organizatsiya Farmatsiyevoy Servisy, 1962, pp 1-454. F100067168-V
FTD-HT-66-599

Automatic Count of Microorganisms Differing in Their Luminescence Color, by L. B. Kaminii.
RUSSIAN, per, Priladnaya Biokhimiya i Mikrobiologiya, Vol 2, No 6, pp 703-706.
*ACSI J-4786
*FSTC HT-23-31-68

The Influence of the Addition of Inosin and Adenine on the Preservation of Erythrocyte Suspensions, by F. G. Ginsburg.
RUSSIAN, bk, Questions of Biophysics, Biochemistry and Pathology of Erythrocytes, pp 310-317.
*ACSI J-4691
ID 2204014068

Scientific
Chemistry (Contd)

Effectiveness of Irradiation of Stock and Containers with Bacteriocidal Lamps, by S. S. Shkol'nikova.
RUSSIAN, per, Rybnoe Khoz, Vol 44, No 1, 1968, pp 64-65.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Self Ignition and the Induction Period of Liquid Fuel Droplets, by F. A. Agafonova.
RUSSIAN, rpt, Teplo- i Massopereenos, t. 4: Teplo- Massoobmen Pri Khimii Cheskiikh Prevrascheniyakh v Tekhnologii, Vol 4, 1966, pp 241-251.
*FTD-MT-24-130-68

Anodic Process of Formation of Oxide Films on Aluminum, Magnesium, and Titanium, as Revealed by the Tagged Atom-Method Data, by A. F. Bogoyavlenskiy.
RUSSIAN, per, Kazan. Aviatsonnyy Institut. Trudy, Seriya Khimicheskaya, No 90, 1966, pp 3-7.
*FTD-HT-23-456-68

Intermediate Products of the Radiolysis of Water, by V. A. Sharpatyy & M. A. Prbskurhin.
RUSSIAN, per, Trudy II Vsesoyuznogo Soveshchaniya po Radiatsionnoy Khimii, 1962.
*ACSI J-4888
*FSTC-HT-23-54-68

Primary Products of the Radiolysis of Water and Their Reactivities, by A. K. Pikayen.
RUSSIAN, per, Uspekhi Khimii, Vol 8, No 36, pp 1427-1436.
*ACSI J-4838
*FSTC HT-23-136-68

Detoxication of a Purified and Concentrated Diphtheria Toxin by Formalin, by L. V. Larionova.
RUSSIAN, per, Vaktsiny i Syvorotki Materialy po Proizvodstvu, No 6, 1966, pp 81-91.
*ACSI J-4972
*FSTC-HT-23-183-68A

Microflora of Decaying Brick, Marble and Plaster, by B. V. Gromov.
RUSSIAN, per, Vestnik Leningradskogo Universiteta, Vol 15, No 3, 1963, pp 69-74.
*ACSI J-4885
*FSTC-HT-23-55-68

Scientific
Chemistry (Contd)

The Question About Determination of Effective Rate of Dissociation of Diatomic Molecules, by L. A. Ladnov.
RUSSIAN, per, Leningrad. Universitet. Vestnik. Seriya Matematiki, Mekhaniki i Astronomii, No 4, 1963, pp 146-150. FI00094768-V
FTD-MT-64-146

Specific Solvent Effect on Cohesive Energy of Polymers in Solution, by S. E. Nesterov & V. E. Eskin.
RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya, No 11, pp 812-814.
*ACSI J-4905
*FSTC-HT-23-84-68

The Synthesis and Comparative Experimental and Theoretical Study of Poly-1,2,4- and Poly-1,3,4-Oxadiazoles, by D.A. Bochvar, et al, 7 pp.
RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya, Moscow, Vol. 9(A), No. 7, 1967, pp. 1429-1434.
JPRS 45,461

Elemental Analysis of Unstable Organophosphorus Compounds. Selenium Used as a Desensitizer, by A.P. Terent'yev, et al, 5 pp.
RUSSIAN, per, Zhurnal Analiticheskoy Khimii, Vol. XXIII, March 68, pp. 40,-410.
JPRS 45,458

Separation of Uranium (VI) and Uranium (IV) in Sulfo-Cation Exchangers Containing Various Amounts of Divinyl Benzene, by Z.K. Karalova, et al, 5 pp.
RUSSIAN, per, Zhurnal Analiticheskoy Khimii, Moscow, Vol XXIII, March 68, pp. 455-457.
JPRS 45,458

The Thermochemistry of Trinitromethane, by E. A. Miroshnichenko & Yu. A. Lebedev.
RUSSIAN, per, Zhurnal Fizicheskoy Khimii, Vol 40, 1967, pp 1477-1479.
Dept of Navy NIC tr 2605

The Feasibility of Increasing Power from a CO₂-N₂-He Mixture, by P. A. Bokhan, Ye. S. Yegorova.
RUSSIAN, per, Zhurnal Prikladnoy Spektroskopii, Vol 7, No 6, 1967, pp 934-936.
*FTD-HT-23-252-68

Scientific
Chemistry (Contd)

Chemistry in Photography II - Color Photography, by H. J. Fijn Van Draat, 12 pp.
DUTCH, per, Chemie and Techniek Revue, Vol 21, No 13, 1966, pp 457-461.
ACSI J-4358
ID 2204006068

The Reinforcing Effect of IR Radiation on the Luminescence of (Zn,Cd)S: Mn Excited by α Rays, by A. Geoffroy, 9 pp.
FRENCH, per, Comptes Rendus, No 261, 1965, pp 5072-5075. P911081268-V
AEC-UCRL-Tr 10205

Future Trends in the Field of Chemical Propellants, by Marcel Barrere and Bernard Crampel, 64 pp.
FRENCH, per, ONERA T.P., No 516, 1967, Dept of Navy/APL/JHU T-2125.

Thermal and Chemical Ablation in Hybrid Combustion, by Jean-Francois Lieberherr, 32 pp.
FRENCH, per, ONERA T.P., No 517, 1967. Dept of Navy/APL/JHU T-2122

Experimental and Theoretical Study of the Generation of Detonation by Shock Wave in a Granular Explosive, by H. Bernier & J. M. Lezard. FRENCH, rpt, Symposium High Dynamic Pressure, Paris, 11-15 Sept 1967. P911085468-V
AEC LA-Tr-68-2

About a Heating Cell for the Purpose of Study of the High Speed Sterilization Within the Scope of a Laboratory, by J. Herrmann & H. Donath. GERMAN, per, Die Lebensmittel Industrie, No 2, 1967, pp 54-55.
ACSI J-3107

Influences on Wood Deterioration by Soft Rot Fungi in Soil, by G. Becker and P. Kanne. GERMAN, per, Material und Organismen, Vol 1, No 3, 1966, pp 201-220.
*ACSI J-4621
*FSTC HT-23-92-68

Rot and Mildew Proofing of Cotton Fabrics in Relation to Fastness Tests, by E. R. Rudolf. GERMAN, per, Material und Organismen, Vol 2, No 1, 1967, pp 1-27.
*ACSI J-4622
*FSTC HT-23-93-68

Scientific
Chemistry (Contd)

The Effect of Some Mould Fungi on Plastics, by A. Savulescu and V. Lazar. GERMAN, per, Revue De Biologie, Vol 5, No 1-2, 1960, pp 67-75.
*ACSI J-4827
*FSTC HT-23-132-68

Metallurgical Basis of the Oxidation of High-Chromium Iron-Carbon Alloys, by M. Schmidt. GERMAN, per, Stahl Eisen, No 88, 22 Feb 1968, pp 160-168.
*BISI 6369

Synthetic Poisons - Chemistry - Action - Military Importance, by Karlheinz Lohs, 228 pp. GERMAN, bk, Synthetische Gifte, Deutscher Militaerverlag, Berlin, 1967, pp 5-327.
ACSI J-3892
ID 2218645267

Cyanoacetylene. I. Synthesis and Some Chemical Properties, by S. Murahashi, et al. JAPANESE, per, Nippon Kagaku Zasshi, Vol 77, 1956, pp 1689-1692.
*NASA TT F-11,771

Effect of Ethylene Oxide on Several Wood Destroying Fungi, by R. Kowalik & I. Sadurska. POLISH, per, Acta Microbiologica Polonica, Vol 9, No 1, 1960, pp 67-69.
ACSI J-4357
ID 2204005968

First National Symposium on Nuclear Chemistry. POLISH, rpt, I Krajowe Sympozjum Chemii Jadrowej, 10-12 Feb 1964, 464 pp.
*CFSTI TT 68-50015

Detection and Determination of Small Concentrations of Palladium with 1-nitroso-2-naphthol and 2-nitroso-1-naphthol, by Elena Rosina Alvarez. SPANISH, per, Anales de la Direccion Nacional de Quimica, Vol 2, 1949, pp 88-90.
*NASA TT F-11,836

The Prevention of the Appearance of Fungi on Sausage Casing Surfaces, by R. Zivanovic. CROATIAN, per, Tehnologija Mesa, No 11, 1967, pp 314-316.
ACSI J-4321
ID 2204004668

Scientific
Earth Sciences & Oceanography

Determination of the Position of an Artificial Satellite by Simultaneous Observation of Its Topocentric Directions from Known Stations on the Earth's Surface, by I. D. Zhongolovich. RUSSIAN, per, Byulleten' Instituta Teoreticheskoy Astronomii, Vol 10, No 8 (121), 1966, pp 509-515.

*ACIC TC-1425

Effect of Height of the Snow Cover on Natural Regulation of River Runoff in Eastern Georgia, by L. V. Sidorova. RUSSIAN, per, Effect of Height of the Snow Cover on Natural Regulation of River Runoff in Eastern Georgia, pp 101-109.

*ACSI J-4887

*FSTC-HT-23-158-68

On the Mechanism of Energy Transfer in Organic Complexes of Rare Earths, by V. V. Kuznetsova & A. N. Sevchenko. RUSSIAN, per, Fizicheskiye Problemy Spektroskopii, Akademiya Nauk SSSR, Komissiya no Spektroskopii, Vol 1, 1960, pp 236-239. Dept of Navy NIC tr 2604

The Accuracy of Radiotelemeter Measurements in Northern Regions, by V. V. Zlotin. RUSSIAN, per, Geodeziya i Kartografiya, No 5, 1967, pp 13-21. ACSI J-3371 ID 2204042367

A Device for Automatically Recording Measurements Made on a Stereocomparator, by V. K. Malyavskiy. RUSSIAN, per, Geodeziya i Kartografiya, No 6, 1967, pp 46-53. ACSI J-3373 ID 2204043067

Field Tests of a Gas Laser Geodetic Range-Finder, by A. V. Gordayev. RUSSIAN, per, Geodeziya i Kartografiya, No 12, 1967, pp 7-13. *FTD-HT-24-205-68

On the Keratophyre-Spillitic Formation of the South-Yenisey Mountain Ridge and on Possible Nature of the Kasekyn Magnetic Anomaly, by E. B. Melnikina. RUSSIAN, per, Geologiya i Geofizika, Issue 1, 1965, pp 169-172. ACIC TC-1351

Scientific
Earth Sciences & Oceanography (Contd)

Preliminary Figures for Ferrous Ore Mining in 1967, by V.S. Vinogradov, 6 pp. RUSSIAN, journal, Gornyy Zhurnal, Moscow, Feb 68, pp. 3-5. JPRS 45,135

The Helminth Fauna of Marine Mammals in the Light of their Ecology and Phylogeny, by S. L. Delyamure. RUSSIAN, per, Helminthology Laboratory, Academy of Sciences of the USSR, 1955. Dept of Navy NIC tr 2599

Ice Conditions in the Davis Sea January-April 1963, by A. M. Kozlovskii. RUSSIAN, per, Inform. Byull. Sov. Antarkt. Eksped., No 46, 1964, pp 31-33. P911083568-V AEC UCRL-Tr-10154

Dispersion of Icebergs North of the Shores of Eastern Antarctica Observed During the 1962-1963 Navigation Season, by L. I. Eskin. RUSSIAN, per, Inform. Byull. Sov. Antarkt. Eksped., No 46, 1964, pp 34-36. P911083568-V AEC UCRL-Tr-10155

Turbulence Investigations in the Ocean, by G. Yu. Aretinskiy, et al, 7 pp. RUSSIAN, per, Issledovaniya v Severo-Zapadnoy Chasti Indiyanskogo Okeana, Sevastopol', 1967, pp. 35-41. JPRS 45,341

Distribution of Suspensions in the Waters of the Arabian Sea, by G.G. Neuymin, et al., 10 pp. RUSSIAN, per, Issledovaniya v Severo-Zapadnoy Chasti Indiyanskogo Okeana, Sevastopol', 1967, pp. 48-58. JPRS 45,341

Self-Contained Instruments for Continuous Registry of Temperature and Current Velocity Fluctuations at Great Depths in the Ocean, by G. Yu. Aretinskiy, et al, 7 pp. RUSSIAN, per, Issledovaniya v Severo-Zapadnoy Chasti Indiyanskogo Okeana, Sevastopol', 1967 pp. 90-96. JPRS 45,341

Remote Control of Deep-Water Hydrooptical Apparatus, by V.M. Zaikin, et al, 5 pp. RUSSIAN, per, Issledovaniya v Severo-Zapadnoy Chasti Indiyanskogo Okeana, Sevastopol', 1967, pp. 97-101. JPRS 45,341

Scientific
Earth Sciences & Oceanography (Contd)

Investigations of the Central American Sea.
RUSSIAN, bk, Issledovaniya Tsentralno-Amerikanskikh Morei, 1966, 248 pp.
*CFSTI TT 68-50640

First USSR Experiments With Sadko-2 Under-
water "Apartment", by S. Sergeyev, 7 pp.
RUSSIAN, newspaper, Izvestiya, Moscow, 15 Nov 67,
p. 4.
JPRS 45,154

Determination of the Composition of Rocks of the
Paleozoic Basement According to Characteristic
Peculiarities of the Anomalous Magnetic Field, by
A. V. Glazurova.
RUSSIAN, per, Izvestiya Akademii Nauk Turkmenskoy
SSR, No 6, 1966, pp 65-74.
ACIC TC-1348

Variations of the Magnetic Field at High Latitudes
and Structure of the Geomagnetic Field
in the Magnetosphere, by Ya. I. Fel'dshteyn
and A. N. Zaytsev.
RUSSIAN, per, Kosmicheskiye Issledovaniya, Vol
6, No 1, 1968, pp 155-157. P910125568-V
Sci Tech Info Facility
ST-GM-10693

An Apparatus for Measuring Turbulence Pulsations
in Current Speed and Temperature at Great Ocean
Depths, by A. G. Kolesnikov & N. A. Panteleyev.
RUSSIAN, per, Methods and Instruments for
Investigating the Physical Processes Taking Place
in the Ocean, pp 15-25.
Dept of Navy NIC tr 2603

Evaluation of the Accuracy of Gravimetric Maps,
by I. V. Avdulov.
RUSSIAN, per, Prikladnaya Geofizika, No 36,
1963, pp 167-180.
ACIC TC-1363

Application of Aerial Methods in Groundwater
Studies, by N. G. Kall, 141 pp.
RUSSIAN, mono, Primeneniye Aerometodov dlia
Issledeniya Gruntovykh Vod, 1962.
*CFSTI TT 68-50638

Data on Swimming Speeds of Marine Animals, by
A.V. Chepurinov and V.V. Ovchinnikov, 8 pp.
RUSSIAN, journal, Priroda, Moscow, No. 4,
1967, pp. 59-63.
JPRS 45,222

Scientific
Earth Sciences & Oceanography (Contd)

The Development of Soviet Hydrobiology and
Ichthyology, by G.V. Nikol'skiy, 12 pp.
RUSSIAN, journal, Priroda, Moscow, No. 8,
1967, pp. 43-50.
JPRS 45,222

The Effect of Tsunami on Sea Otter Populations,
by V.G. Voronov, 6 pp.
RUSSIAN, journal, Priroda, Moscow, No. 8,
1967, pp. 70-72.
JPRS 45,222

Problems of the Sea Chemistry, 272 pp.
RUSSIAN, mono, Problemy Khimii Moria, Vol 42,
1960.
*CFSTI TT 68-50639

Gravity Determinations with Pendulums, by
A. Ye. Medunin.
RUSSIAN, bk, Rasvitye Gravimetrii v Rossii.
Chapter 2, 1967, pp 38-82.
*ACIC TC-1416

Study of Effect of Explosions on Fish, by
B.V. Vyskrebentsev, et al., 5 pp.
RUSSIAN, per, Rybnoye Khozyaystvo, Vol. 44,
No. 1, Moscow, 1968, pp. 22-24.
JPRS 45,356

Structural Characteristics of the Earth's Crust
in the Southern Part of the European USSR, by
A. V. Chekunov.
RUSSIAN, per, Sovetskaya Geologiya, No 12, 1967,
pp 13-29.
*ACIC TC-1411

The Theory of the Figure of the Earth, by
N. P. Grushinskiy.
RUSSIAN, bk, Teoriya Figury Zemli, 1963, 446 pp.
*FTD-HT-23-393-68C

Old Phosphorites of Asia and Their Genesis, by
G. I. Bushinskii.
RUSSIAN, per, Trudy Akademii Nauk SSSR,
Geologicheskii Institut, Vol 149, 1966, 190 pp.
*CFSTI TT 68-50468

Geological Results of Geophysical Investigations
in Siberia and the Far East, E. E. Potiadi.
RUSSIAN, bk, Akademiya Nauk SSSR, Sibirekoye
Otdeleniye, Trudy Instituta Geologii i Geofiziki.
1967, pp 5-169, 199-288, 304-493.
*ACIC TC-1421

Scientific
Earth Sciences & Oceanography (Contd)

Radar Determination of Some Ocean-Wave Elements,
by V. V. Dremlyug.
RUSSIAN, per, Leningrad, Arktich i Antarktich.
Nauchno-Issled Inst. Trudy, No 210, 1960, pp 135-
136.
*Dept of Navy/APL/JHU J-1153

The Orographic Influence of Continents and Oceans
Upon the Stratospheric Pressure Field in the
Northern Hemisphere, by R. B. Belich.
RUSSIAN, per, Tsentral'naya aerologicheskaya
observatoriya, Trudy, Fizika vysokikh sloev
atmosfery, No 69, 1966, pp 29-35.
*FTD-HT-23-414-68

A New Shrimp Species From the Genus Bytho-
caris and Certain Questions of the Genus'
Zoogeography, by R.N. Burovskiy, 12 pp.
RUSSIAN, journal, Zoologicheskii Zhurnal,
Moscow, Vol. 65, No. 4, 1966, pp. 536-542.
JPRS 45,222

On the Basic Types of Geologic Cross-
Section in Mountain Railway Subgrade Engineer-
ing From the Standpoint of Morphologic
Divisions and Pertinent Problems that Need
Consideration, by Tung Chih-ch'ao, 25 pp.
CHINESE, per, Chung-kuo Ti-szu-chi Yen-chiu,
Peking, Vol. 3, Nos 1-2, May 61, pp. 112-128.
JPRS 45,417

Manganese Mines in China, by Li Ming-Shu,
7 pp.
CHINESE, per, Ti-li Chih-shih, Peking,
Vol. 11, No. 1, Jan 60, p. 16.
JPRS 45,194

Geomorphological Observations on the West
Lake (Hsi-Hu) Scenic Area, by Teng Po, 10 pp.
CHINESE, per, Ti-li Chih-shih, Peking,
Vol. 11, No. 1, Jan 60, pp. 19-21, 24.
JPRS 45,194

The Local Geography of Shao-Hsing Hsien,
by Ch'en Ch'iao-i, 11 pp.
CHINESE, per, Ti-li Chih-shih, Peking,
Vol. 11, No. 1, Jan 60, pp. 33-36.
JPRS 45,281

Scientific
Earth Sciences & Oceanography (Contd)

Soil Salinity in China's Various Natural
Regions and its Relationship to Plant Cover,
by Hou Hsueh-yu, 23 pp.
CHINESE, per, T'u-iang, Peking, No. 7-
1961, August 1961, pp. 1-13.
JPRS 45,372

Selected Portions from Book: International
Yearbook of Cartography, by Edward Imhof,
87 pp.
FRENCH & GERMAN, bk, Annuaire International de
Cartographie (Internationales Jahrbuch fuer
Kartographie), 1966, pp 25-31; 33-39; 41-45;
81-90; 103-111; 114-119; 122-135.
ACSI J-4142
ID 2204001368

First Attempts in the Experimental Investigation
of Seismic Tremors, by H. Hagrya.
FRENCH, rpt, Franco-German Research Institute,
St Louis, France Technical Communication No
Th8/65, p 19.
*ACSI J-4919
*FSTC-HT-23-167-68

Mineral Resources in Guinea, by B. Panov,
6 pp.
FRENCH, np, Horoya, Conakry, 12 April 68,
pp. 4 and 2; 13 April 68, pp. 4 and 3.
JPRS 45,413

Report on Diamond Production in Africa,
5 pp.
FRENCH, np, le Moniteur Africain, Dakar,
28 March 68, pp. 4-6.
JPRS 45,283

Organisation of the French Polar Expeditions.
FRENCH, per, Organisation des Expeditions Polaires
Francaises, 1956, pp 1-25.
Dept of Navy NIC tr 2586

On the Interpretation of Charts of Magnetic
Isocanals and Profiles, by J. Koenigsberger.
GERMAN, per, Gerlands Beitrage zur Geophysik,
Vol XIX, 1928, pp 241-291.
ACTC TC-1346

Scientific
Earth Sciences & Oceanography (Contd)

Statistical Analysis of the Principal Geomagnetic Field, by H. Kautzleben.
GERMAN, per, Monatsberichte der Deutschen Akademie der Wissenschaften zu Berlin, Vol 8, No 12, 1966, pp 910-916.
ACIC TC-1347

The Gravitation Field and Inner Structure of the Earth, by O. Lucke.
GERMAN, per, Wissenschaftliche Zeitschrift der Humboldt-Universität zu Berlin, Mathematisch-Naturale Science Series, Vol XIV, No 3, 1965, pp 425-434.
*ACIC TC-1417

On the Determination of the Geoid from Satellite Observations, by E. Groten.
GERMAN, per, Zeitschrift für Vermessungswesen, Vol 91, No 5, 1966, pp 164-168.
*ACIC TC-1422

The Improvement of Vening Meinesz' Formula by Considering the Topography, by K. R. Koch.
GERMAN, per, Zeitschrift für Vermessungswesen, Vol 92, No 1, 1967, pp 23-29.
*ACIC TC-1424

Development and Prospects of Photogrammetry in Hungary, by Dr. Geza Hanko, 8 pp.
HUNGARIAN, per, Geodezia es Kartografia, Budapest, No. 1, 1968, pp. 40-43.
JPRS 45,163

Deformations of an Earth Model Caused by Surface Distributions of Gravitational Masses, by M. Caputo.
ITALIAN, per, Istituto di geodesia, topografia e geofisica dell'Università di Trieste, Pub No 59, 1960, pp 157-165.
ACIC TC-1308

A Troubled Sea, 21 pp.
ITALIAN, per, Le Marine del Mediterraneo, No 7-9, Jul-Sept 1967, pp 13-23.
DIA L: 682-68

Preliminary Report on the Italian Pendulum Measurements for the European Gravimetric Base, by C. Masson & L. Pieri.
ITALIAN, per, La ricerca scientifica, No 11, Nov 1958, pp 3 (2300) - 9 (2306).
ACIC TC-1301

Scientific
Earth Sciences & Oceanography (Contd)

Twentieth Anniversary of the Institute of Photogrammetry of the Geological Faculty of Zagreb University, 6 pp.
SERBO-CROATIAN, per, Geodetski List, Zagreb, No. 10-12, Oct-Nov-Dec 67, pp. 218-220.
JPRS 45,299

Electronics & Electrical Engineering

Multi-Program Organization of the Operation of a Computer System, by G. D. Bukiya.
RUSSIAN, per, AN GruzSSR, Soobshcheniya, Vol 46, No 1, 1967, pp 41-47.
*FTD-HT-23-429-68

Storage Capacity Minimization in Sequential Asynchronous Logic Networks, by E. A. Yakubaytis.
RUSSIAN, per, AN LatSSR, Institut Elektroniki i Vychislitel'noy Tekhniki, Avtomatika i Vychislitel'naya Tekhnika, No 12, 1966, pp 115-130.
*FTD-HT-23-433-68

Synthesizing the Networks Consisting of Three-Valued Majority Elements by Solving Systems of Logic Equations, by B. L. Ovdiyevich.
RUSSIAN, rpt, AN LatSSR, Institut Elektroniki i Vychislitel'noy Tekhniki, Avtomatika i Vychislitel'naya Tekhnika, No 12, 1966, pp 143-150.
*FTD-HT-23-388-68

Tunnel-Diode r-f Storage Element, by V. A. Vul'.
RUSSIAN, rpt, AN LatSSR, Institut Elektroniki i Vychislitel'noy Tekhniki, Avtomatika i Vychislitel'naya Tekhnika, No 14, 1966, pp 101-108.
*FTD-HT-24-148-68

Parallel Arithmetic Unit Designed with Tunnel Diodes, by K. V. Elinova.
RUSSIAN, rpt, AN LatSSR, Institut Elektroniki i Vychislitel'noy Tekhniki, Avtomatika i Vychislitel'naya Tekhnika, No 14, 1966, pp 115-121.
*FTD-HT-24-148-68

Use of Tunnel Diodes in Analog-to-Digital Converters, by I. Nymants.
RUSSIAN, rpt, AN LatSSR, Institut Elektroniki i Vychislitel'noy Tekhniki, Avtomatika i Vychislitel'naya Tekhnika, No 14, 1966, pp 185-191.
*FTD-HT-24-148-68

Scientific
Electronics & Electrical Engineering (Contd)

Combined Calculating Device, by G. K. Krug, I. A. Siray, 6 pp.
RUSSIAN, per, AN SSSR, Institut Avtomatiki i Telemekhaniki. Vychislitel'naya Tekhnika v Upravlenii, 1966, pp 152-157. FI00078268-V
FTD-MT-24-240-67

Chain-Ring Method of Coding, by I. A. Nabiyev.
RUSSIAN, rpt, Avtomat. Kontrol' i Metody Oelektr. Ismereniy T. 2, Novosibirsk, Vol 2, 1964, pp 74-77.
*FTD-HT-23-406-68

Transmission and Checking Information in a Punchcard-Type Computing System, by B. Ye. Marchuk.
RUSSIAN, per, Avtomatika, Telemekhanika i Svyaz', No 7, 1967, pp 17-19.
*FTD-MT-24-196-68

Bionic Aspects of Autometry, by K.B. Karandeyev, et al, 12 pp.
RUSSIAN, per, Avtometriya, Novosibirsk, Sept-Oct 67, pp. 119-128.
JPRS 45,444

Stability of Nonlinear Pulse Systems, by A. Kh. Gelig, 9 pp.
RUSSIAN, per, Doklady Akademii Nauk SSSR, Moscow, Vol. 178, No. 4, 1968, pp. 793-796.
JPRS 45,244

The Use of Controlled Feedback in Identifying and Evaluating the Stability Store of Stochastic Objects, by V.V. Baly and M.F. Dimentbert, 6 pp.
RUSSIAN, per, Doklady Akademii Nauk SSSR, No. 5, pp. 1030-1033, 1967.
JPRS 45,276

Basal Metabolism in Animals in Connection With the Negentropy Principle of Information, by A.I. Bykhovskiy, 7 pp.
RUSSIAN, per, Doklady Akademii Nauk SSSR, Moscow, Vol. 177, No. 5, 1967, pp. 1219-1222.
JPRS 45,276

Using Frequency Phase Characteristics of Impedance in P-N Junction for Measuring Short Lifetimes, by S. I. Adirovich, O. Ye. Kruchenetski
RUSSIAN, per, Dokl. AN UZSSR, No 10, 1964, pp 11-14.
*FTD-MT-66-608

Scientific
Electronics & Electrical Engineering (Contd)

Conversion of Microsecond Intervals of Time to Digital Code, by Ye. I. Rekhin, V. M. Lyaporov, 28 pp.
RUSSIAN, per, USSR, Gosudarstvennyy Komitet Po Ispol'zovaniyu Atomnoy Energii. Doklady, No 99, 1964, pp 1-19. FI00082968-V
FTD-MT-24-104-67

Specialized Calculating Machines for Calculation of Economic Distribution of Active Loads in Power Systems, by S. A. Ginsburg, A. N. Stavrovskiy, 10 pp.
RUSSIAN, per, Elektrichestvo, No 7, 1966, pp 85-89. FI00088768
FTD-MT-24-316-67

The Basic Stages of Standardization of Electrical Engineering Equipment of the USSR, by G. S. Flis.
RUSSIAN, per, Elektrichestvo, No 10, Oct 1967, pp 1-7.
*FTD-HT-23-442-68

Recording of Shock Waves and Exploding Wire Electrical Characteristics, by Yu. A. Kotov.
RUSSIAN, per, Elektronnaya Obrabotka Materialov, No 3, 1966, pp 28-32.
*FTD-MT-24-184-68

The ST-64 Photo-Electric Telemeter in Urban Triangulation, by S. A. Balandin.
RUSSIAN, per, Geodeziya i Kartografiya, No 5, 1967, pp 24-26.
ACSI J-3371
ID 2204042867

Expansion of Electrical Engineering Production Shown in Exhibition, by A. Makar'yev, 5 pp.
RUSSIAN, bulletin, Informatsionnyy Byulleten VDNKh SSSR, No. 2, Moscow, 1968, pp. 4-6.
JPRS 45,221

Problems of Programming Automation in the Estonian SSR, by B. Tamm.
RUSSIAN, per, Izvestiya. AN EstSSR. Fizika. Matematika, No 3, 1967, pp 267-285.
*FTD-HT-23-404-68

Analog Digital Multiplier with Expanded Range of Code Factor Change, by T. F. Bekmuratov and V. P. Skuridin, 7 pp.
RUSSIAN, per, AN UZSSR. Izvestiya. Seriya Tekhnicheskikh Nauk, No 4, 1966, pp 27-30.
FI00078968-V
FTD-MT-24-140-67

Scientific
Electronics & Electrical Engineering (Contd.)

On Increase of Speed of Operation of Certain Systems of Automatic Control, by N. Kh. Shatskiy, 14 pp.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy, Elektromekhanika, No 7, 1965, pp 783-790. P100089368-V
*FTD-MT-67-99

Investigations of Dynamic Process in a Contactless Control Scheme for a Blooming Mill Drive, by S. V. Yaroshevich.
RUSSIAN, per, Izv. VUZ Elektromekhanika, No 8, 1967, pp 882-888.
*BISI 6415

A Statistical Method for Determining Errors in Computing Equipment Using Analog Computers, by Yu. V. Verkiyenko.
RUSSIAN, per, IYUZ. Priborostroyeniye, Vol 10, No 4, 1967, pp 73-76.
*FTD-MT-24-195-68

Progress of Television in the Soviet Union, by P. V. Shmakov.
RUSSIAN, per, IYUZ. Priborostroyeniye, Vol 10, No 10, 1967, pp 25-34.
*FTD-MT-24-188-68

Determining the Size of Effective Radiation Zones of Conical Spiral Antennas, by A. B. Goroshchenya.
RUSSIAN, per, IYUZ. Radioelektronika, Vol 10, No 2, 1967, pp 150-156.
*FTD-MT-24-159-68

Signal-Noise Threshold Ratio During Target Detection on a Reflecting Background, by L. B. Fuks.
RUSSIAN, per, IYUZ. Radioelektronika, Vol 10, No 5, 1967, pp 443-448.
*FTD-HT-23-453-68

Nonlinear Distortions and Optimal Operational Characteristics of Certain Optical Modulators, by A. P. Buryak.
RUSSIAN, per, IYUZ. Radioelektronika, Vol 10, No 5, 1967, pp 489-493.
*FTD-HT-23-453-68

Certain Problems in the Theory of Multidimensional Storage-Device Design, by M. Ya. Ringorin.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy, Radiofizika, Vol 9, No 5, 1966, pp 1020-1028.
*FTD-MT-24-154-68

Scientific
Electronics & Electrical Engineering (Contd.)

Electromechanical Model of the Vibrations of a Wing with an Aileron in an Air Stream, by S. P. Stralkov and A. A. Kharlamov, 12 pp.
RUSSIAN, per, VUZ. Izv., Radiofizika, Vol 10, No 3, 1967, pp 433-440.
Dept of Navy/APL/JHU T-2124

Certain Questions About the Theory and Practice of Building a Cosmic Television System, by P. F. Bratalavets.
RUSSIAN, bk, Kosmicheskoye Televideniye, 1967, 136 pp.
*FTD-MT-24-158-68

Analog-Digital Converter for Simultaneous Coding and Input of Two Analog Quantities into an Electronic Digital Computer, by A. I. Kondalev.
RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya Upravleniya, No 1, 1967, pp 22-25.
*FTD-MT-24-202-68

Foundations of Reliability and Operation Theory for Radioelectronic Equipment, by N. A. Shishonok, V. F. Repkin, 712 pp.
RUSSIAN, bk, Osnovy Teorii Nadeshnosti i Eksploataatsii Radioelektronnogo Tekhniki, 1964, pp 1-551. P100087468-V
*FTD-HT-67-154

Principles of the Theory and Designing of Digital Computers, by B. V. Anisimov.
RUSSIAN, per, Osnovy teorii i proyektirovaniya tsifrovyykh vychislitel'nykh mashin, 2nd ed, 1965, 483 pp.
*FTD-HT-23-412-68C

Automation of the Acquisition and Processing of Data on Complex Experiments by Means of Digital Computers, by V. S. Balakirev.
RUSSIAN, per, Priory i sistemy upravleniya, No 3, 1967, pp 28-30.
*FTD-HT-23-427-68

Problems of Cybernetics (Part 2), by V. I. Levenstein, 82 pp.
RUSSIAN, per, Problemy Kibernetiki, No 11, 1964, pp 63-121. P100079368-V
*FTD-MT-24-126-67

Piezoceramic Materials in Electronics, by I. A. Glosman, 115 pp.
RUSSIAN, bk, Piezokeramicheskiye Materialy v Elektronnoy Tekhnike, 1965.
ACAI J-2700
ID 2204024867

Scientific
Electronics & Electrical Engineering (Contd)

The Minsk-2/22 as a Basic Machine for Homogeneous, Universal Computer Systems, by V. V. Przhiyalkovskiy
RUSSIAN, rpt, Sb. Vychisl. Sistemy, Vyp. 23, Novosibirsk, "Nauka", 1966, pp 21-34.
*FTD-HT-24-192-68

Certain Problems Associated with the Reliability of Homogeneous Universal Computer Systems, by V. G. Khoroshevskiy.
RUSSIAN, rpt, Sb. Vychisl. sistemy, Vyp. 23, 1966, pp 69-89.
*FTD-HT-23-426-68

Some Problems of Combined Computer Technology, by B. Ya. Kogan.
RUSSIAN, rpt, Sb. Vychisl. tekhn. v upr. M., 1966, pp 5-18.
*FTD-MT-24-168-68

Logical Automaton Under Development in Latvian SSSR, by E.A. Yakubaytis and K. Levitin, 7 pp.
RUSSIAN, per, Snaniye-Sila, Moscow, No. 1, Jan 68, pp. 6-8.
JPRS 45,157

Thin Films in Microminiaturization of Radioelectronic Equipment, by V.V. Slutskaya, 19 pp.
RUSSIAN, bk, Tonkiye Plenki v Tekhnike SVCh, Sovetskoye Radio Publishing, Moscow, 1967, pp. 404-427.
JPRS 45,406

Towards a Theory of the Synthesis of Antennas with Volumetric Distribution of Sources, by V. N. Dymakiy, 28 pp.
RUSSIAN, per, Kazan. Aviatsonnyy Institut. Trudy, Radiotekhnika i Elektronika, No 82, 1964, pp 3-26. P100081668-V
FTD-MT-24-113-67

Methods for Evaluating and Some Ways for Increasing the Reliability of the Results of Automatic Control, by V. I. Perov, T. D. Zhalkover.
RUSSIAN, per, Vsesoyuznaya Konferentsiya po Avtomaticheskomu Kontrolu i Metodam Elektricheskikh Izmereniy, 5th. Avtomaticheskiv Kontrol' i Metody Elektricheskikh Izmereniy, Trudy Konferentsii, Vol 2, 1966, pp 78-84.
*FTD-MT-67-734

Determining Computer Reliability, by I. M. Malikov.
RUSSIAN, per, Trudy Leningrad. Inzhenerno-Ekonomicheskiv Instituta, No 55 (1), 1965, pp 79-84.
*FTD-MT-24-13-67

Scientific
Electronics & Electrical Engineering (Contd)

Effectiveness of Programmed Control in the Minsk-222 Computer System, by A. K. Olefir.
RUSSIAN, per, Trudy Simpozium po Probleme "Vychislitel'nyye Sistemy," Novosibirsk, Vychislitel'nyye Sistemy, 1967, pp 32-37.
*FTD-HT-23-438-68

A System of Data Exchange Between Two Digital Computers, by B. F. Kipurov.
RUSSIAN, per, Trudy Simpozium po Probleme "Vychislitel'nyye Sistemy," Novosibirsk, Vychislitel'nyye Sistemy, 1967, pp 85-88.
*FTD-MT-23-438-68

Raising Reliability of Magnetic Tape Storages by Programmed Organization of Information Retrieval in Tape Sections, by G. G. Ovsyannikov.
RUSSIAN, per, Tsifrovaya Vychislitel'naya Tekhnika i Programirovaniye, No 1, 1966, pp 67-73.
*FTD-MT-24-201-68

On the Value of Information, by M. K. Gavurin.
RUSSIAN, per, Leningrad. Universitet. Vestnik. Seriya Matematiki, Mekhaniki i Astronomii, No 4, 1963, pp 27-34. P100094768-V
FTD-MT-64-146

Theory of Binary Relations Applied to Detecting and Locating Faults in Complex Systems, by A. N. Bogomolov.
RUSSIAN, per, Vychislitel'nyye Metody i Programirovaniye Dlya EVM "Ural-2", "Ural-4", Saratov, 1966, pp 3-125.
*FTD-MT-24-191-68

Automatic Programming System for BESM-6 Computer, by Ye. A. Zhogolev, 14 pp.
RUSSIAN, bk, Vychislitel'nyye Metody i Programirovaniye, Moscow University Publishing House, Moscow, Vol. IX, 1967, pp. 2-17.
JPRS 45,468

Method of Characteristics for Computing Two-Dimensional Equilibrium and Perfect-Gas Vortex Flows, by Ya. M. D'yakonov, L. V. Pehalkina.
RUSSIAN, per, Vychislitel'nyy Tsentr. Sbornik Rabot, No 7, 1967, pp 208-224.
*FTD-MT-24-81-68

Use of Thermoelectric Generators, by G. A. Matveyev and L. M. Drabkin.
RUSSIAN, per, Zhurnal Tekhnicheskoy Transport, No 12, 1967, pp 36-37.
*ACSI J-4846
*FTC HT-23-133-68

Scientific
Electronics & Electrical Engineering (Contd)*

Algorithm of the Selection of Concepts with the Help of a Syntactic Table, by Ye. A. Zhogolev, 16 pp.
RUSSIAN, per, Zhurnal Vychislitel'noy Matematiki i Matematicheskoy Fiziki, Vol 5, No 4, 1965, pp 689-698. F100077468-V
FTD-MT-67-76

The "Alfa" System Recognizes Situations of a Model of an Extreme Control Object, by L. N. Imas & T. D. Kravets'.
UKRAINIAN, per, Avtomatika, Institut Kibernetiki AN URSS, No 001, 1966, pp 43-47. F100106168-V
FTD-HT-23-67-758

Static Tests, by Ping Fu.
CHINESE, per, Hang K-ung Chih Shih, Vol 2, No 4, 1965, p 17.
*FTD-HT-23-408-68C

Reliability of Components and Systems, by F. Zelemy.
CZECH, per, Stroviroenstvi, Vol 16, No 12, Dec 1966, pp 883-890.
ACSI J-4277
ID 2204003268

High-Frequency Circuits Between Greenland and Denmark, by B. Roer, 80 pp.
DANISH, bk, Teleteknik, 1967, pp 1-4; 35-57; 59-71.
DIA LN 127-68

Piezoelectric Pressure Transducers Dynamic Calibration, by F. Valentin.
FRENCH, rpt.
*NASA TT F-11,813

The Development of Teletype Service in France, by Ramond Daude, 24 pp.
FRENCH, per, Ptt de France, No 1, 1967, pp 1-17.
DIA LN 22-68

Definition and Measurement of the Modulation index of an Electrooptical Modulator, by B. Hill.
GERMAN, per, Archiv der Elektrischen Obertragung, Vol 21, oct 1967, pp 547-552.
*NASA TT F-11,818

The Use of the Ultrasonic Impulse Method for non-destructive Testing of High Tension Insulators, by C. Stuber, 6 pp.
GERMAN, per, Ber. Deut. Keram. Ges., Vol 44, No 1, 1967, pp 20-22.
AEC-AERE-Tr-1077

Scientific
Electronics & Electrical Engineering (Contd)

Larger Analog Computers with Numerical Control-System and With Numerical Printout of the Solution, by Vladimir Kryzanek, 32 pp.
GERMAN, per, Ceskoslovenska Akademie Ved. Ustav Matematickych Stroj. Stroj na Spracovani Informaci, No 9, 1963, pp 199-227. F100081168-V
FTD-HT-66-798

ICI 1904 Computer Used at Central Statistics Bureau, by Dr. Laszlo Ormai, 13 pp.
HUNGARIAN, per, Informacio Electronika, No. 1, Budapest, 1968, pp. 45-49.
JPRS 45,185

Conference for Minsk-22 Computer Users, by Tamas Bakos, 5 pp.
HUNGARIAN, per, Informacio Electronica, Budapest, No. 1, 1968, pp. 52-53.
JPRS 45,185

Central Program Registry, by Mrs. Erno Simon, 8 pp.
HUNGARIAN, per, Informacio Electronica, No. 1, Budapest, 1968, pp. 78-79.
JPRS 45,185

A System of Automatic Regulation of Photomultiplier Gain, by C. Sacchi.
ITALIAN, rpt.
*NASA TT F-11,792

Applications of Microwave Band Circulator and Isolator, by Nakahara Shojiro and Shunichiro Kawabata, 11 pp.
JAPANESE, per, Electronic Instrumentation, Vol 7, No 7, Jul 1967, pp 60-64.
ACSI J-4125
ID 2204000568

Transistor High-Frequency Amplifier Circuits Handbook, 160 pp.
JAPANESE, per, Electronic Science, Vol 17, No 9, Sep 1967, pp 14-116.
ACSI J-4126
ID 2204000668

Three Years' Electric Operation in the Mountains of the Bergen Line, 22 pp.
NORWEGIAN, per, NSS Teknisko Meddelelser, No 4, Dec 1967, pp 128-130.
DIA LN 703-68

Scientific
Electronics & Electrical Engineering (Contd)

Pneumatic Stream Elements, by A. Stempien.
POLISH, per, Pomiary, Automatyka, Kontrola,
No 1, 1966, pp 3-7. F100106068-V
FTD-HT-23-823-67

Electric Traction in 1966, by Edward Kierzejewski,
6 pp.
POLISH, per, Przegląd Kolejowy Elektrotechniczny,
No 8, 1967, pp 225-228.
DIA LN 644-68

Problem of Measuring the Electrical Conductivity
of a Flowing Plasma, Taking into Account the
Author's Own Investigations, by R. Kirsch.
POLISH, per, Seminarium poświęcone Zagadnieniom
Magneto hydrodynamiki Stosowanej, Institut Maszyn
Przeplywowych, Prace, No 34, 1967, pp 129-140.
*FTD-HT-23-430-68

Progress in the Electrical Engineering and
Electronics Industry, by Adrian Prodan, 8 pp.
RUMANIAN, np, Scinteia, Bucharest, 29 Feb 68,
pp. 1 and 4.
JPRS 45,152

Need to Expand Effort in Electronics in
Rumania, by Filimon Belsadsky, 5 pp.
RUMANIAN, np, Scinteia, Bucharest, 13 Apr 68,
pp. 1,4.
JPRS 45,384

Energy Conversion (Non-Propulsion)

More Reliable Electric Power on the Farm, by
G. Ye. Novikov, 8 pp.
RUSSIAN, per, Elektricheskiye Stantsii,
Moscow, Feb 68, pp. 63-66.
JPRS 44,879

Voltage of 20 KV in the Electrical Networks
of the Latvian SSR, by B.S. Shulov, 11 pp.
RUSSIAN, per, Elektricheskiye Stantsii,
No. 3, Moscow, 1968, pp. 18-23.
JPRS 45,221

Direct Comparison of Various Forms of Energy
into Electric and Mechanical Power, by
G. N. Alekseyev, 261 pp.
RUSSIAN, bk, Neopredelennyye Prevrashcheniya
Razlichnykh Vidov Energii v Elektricheskuyu i
Mekhanicheskuyu, 1963, pp 3-336. F100087868-V
FTD-HT-64-355

Scientific
Energy Conversion (Non-Propulsion) (Contd)

Further Electrification of the Ukraine, by
V. Tkach, 5 pp.
RUSSIAN, np, Rabochaya Gazeta, Moscow,
24 April 68, p. 2.
JPRS 45,473

Starting Characteristics of a 300-Megawatt
Electric Power Unit Under Varying Thermal
Conditions, by S.I. Kazarinov, et al, 14 pp.
RUSSIAN, per, Teploenergetika, Moscow,
No. 3, 1968, pp. 2-5.
JPRS 45,336

Improving the Efficiency of Heat and Electric
Power Plants, by S.A. Zykov, 13 pp.
RUSSIAN, per, Teploenergetika, Moscow,
No. 4, 1968, pp. 2-9.
JPRS 45,301

Development of Central Heating in Leningrad,
by I.S. Lanin, 10 pp.
RUSSIAN, per, Teploenergetika, Moscow,
No. 4, 1968, pp. 16-20.
JPRS 45,301

Turbine Blade, by A. L. Lubny-Gertsyk and
Ye. M. Shvartshteyn.
RUSSIAN, Patent No 179129, Class 46.
*FTD-HT-66-707.

Survey of African Hydroelectric Projects,
5 pp.
FRENCH, per, Le Moniteur Africain, Dakar,
4 April 68, pp. 7-8.
JPRS 45,300

Scientific-Technical Research for Energy
Industry, by W. Raetscher, 5 pp.
GERMAN, per, Mitteilungen des Instituts fuer
Energetik, E. Berlin, Vol. 92, 1967, pp. 81-
87.
JPRS 45,363

Improvements in Cuban Energy Balance, by
Dr. D. Coburger, 5 pp.
GERMAN, per, Die Wirtschaft, E. Berlin,
3 April 68, p. 30.
JPRS 45,459

Utility Power Problems in the 1968 Plan,
by Boleslaw Bartoszek, 15 pp.
POLISH, per, Energetyka, Warsaw, Feb 68,
pp. 37-42.
JPRS 45,180

**Scientific
Materials**

Methods for Experimental Investigation of the Hot Workability of Steels, by J. Elfmark.
CZECH, per, Sbornik Ved. Praci vys. Skoly Panske v Ostrave, Vol XI, No 1, 1965, pp 35-39.
BISI 5855

Determination of Plutonium in Plutonium-Aluminum Alloys by X-Ray Fluorescence, by M. Ganivet & Th. Arnal. 10 pp.
DUTCH, per, Anal Chim Acta, No 39, 1967, pp 73-79.
P921072068
AEC-BNWL-Tr-24

Thermal Efficiency and Flow Resistance of Special Tubes for Heat Exchangers, by K. Stephan.
DUTCH, per, Metalen en Andere Constructive-Materialen, Vol 40, July 1966, pp 247-252.
BISI 5778

The Iron-Chromium-Carbon System, by F. Dept.
FLEMISH, per, ATB Met., Vol 7, No 3, 1967, pp 89-105.
*BISI 6367

The Development of the Blast Furnace, by J. Richard.
FRENCH, per, Ann. Mines (Paris), Feb 1967, pp 5-24.
*BISI 6431

Laboratory Study of the Behaviour of Clayey and Mullite-Base Refractories at High Temperatures and Under Load, by M. J. Schondorffer.
FRENCH, per, C.D.S. Circ., No 2, 1965, pp 477-503.
*BISI 6361

Mechanical Hot Strength of Refractory Products, by L. Lecrivain.
FRENCH, per, C.D.S. Circ., No 5, 1966, pp 1309-1324.
*BISI 6386

Deoxidation of Basic Bessemer Steel by Injection of Carbon Powder into the Converter, by R. Remy.
FRENCH, per, C.D.S. Circ., No 3, 1967, pp 691-703.
BISI 6216

Progress Achieved in Japan in Blast Furnaces and Iron-Making, by G. Warynski.
FRENCH, per, C.D.S. Circ., Vol 5, 1967, pp 1207-1234.
BISI 6020

**Scientific
Materials (Contd)**

Development of the Particle Size of Steelworks Coke, by P. Dancoisne and G. Warynski.
FRENCH, per, C.D.S. Circ., No 10, 1967, pp 2239-2257.
*BISI 6380

The New Beam Mill at Differdange, by J. Graindorge.
FRENCH, per, C.N.R.M., Sept 1966, pp 75-82.
BISI 5494

Continuous Measurement of Sinter Quality, by G. Meunier & R. Holper.
FRENCH, per, C.N.R.M., Dec 1966, pp 17-21.
BISI 5870

Behaviour of Iron Ore Pellets Subjected to Reduction, by R. Pinental de Souza.
FRENCH, rpt, International Congress, Prod. Util. Minerals Reduit, May 1967, p 2.
*BISI 6418

Definition and Manufacture of Forgings Subsequently Used in Welded Constructions, by P. F. Martin & R. Boudot.
FRENCH, per, Int. Forging Conf., Sept 1967, p 20.
BISI 6178

Use of Reduced Ore for Production of Cast Iron.
FRENCH, per, Met. Constr. Mecan., Vol 99, Nov 1967, pp 777-781.
*BISI 6401

Considerations on Industrial Straightening, by J. Flechon & B. Lecuyer.
FRENCH, per, Met.-Corros. Ind., Vol 42, No 501, May 1967, pp 204-213.
*BISI 6419

Conversion of Coke Oven Charging to Automatic Control, by M. Meunier & F. Ditte.
FRENCH, rpt, Paper B.7 Presented at the International Congress in Charleroi on Coke in the Iron and Steel Industry, 19-22 Sept 1966.
BISI 5475

The Influence of Road and Rail Transportation on the Dispatch of Semi-Finished and Finished Iron and Steel Products, by B. Dupon & A. F. de Lafon.
FRENCH, rpt, Paper Presented at the International Steelworks Transport Conference Edinburgh, June 1967, p 48.
BISI 6062

Scientific
Materials

Vapor Pressure and Dissociation Pressure of Rhenium Sulfides, by R. A. Isakova.
RUSSIAN, per, Akad Nauk Kazakh SSR, Ser Met, Obogashchen i Osmeporov, No 3, 1960, pp 10-17.

*FTD-HT-23-259-68

The Effect of Paraffin-Emulsion Lubricant on Adhesion of Epoxy Resins to Glass Fibers, by V. G. Ivanova-Mumshiyeva, Ya. D. Avrasin.
RUSSIAN, rpt, AN SSSR, Institut Khimicheskoy Fiziki, Laboratoriya Armirovannykh Plastikov, Fiziko-Khimiya i Mekhanika Oryentirovannykh Steklo-Plastikov, 1967, pp 73-76.

*FTD-HT-23-261-68

Structure and Properties of $KhN60MVTYu$ (EP487) Alloy, by L. N. Zimina.
RUSSIAN, per, AN SSSR, Institut Metallurgii, Struktura i Svoystva Zharoprochnykh Metallicheski Materialov, Moscow, Izd-vo "Nauka", 1967, pp 181-186.

*FTD-HT-23-449-68

Growing of Single Crystals of Silicon Carbide of Cubic Modification, by M. S. Saidov.
RUSSIAN, rpt, AN UzSSR, Fiziko-Tekhnicheskii Institut, Fizicheskiye Svoystva Osobo Chistyykh Metallov i Poluprovodnikov, 1966, pp 13-17.

*FTD-HT-23-407-68

Influence of Annealing of Silicon in Antimony Vapor on the Density of Linear Dislocations, by M. S. Saidov.
RUSSIAN, rpt, AN UzSSR, Fiziko-Tekhnicheskii Institut, Fizicheskiye Svoystva Osobo Chistyykh Metallov i Poluprovodnikov, 1966, pp 39-41.

*FTD-HT-23-407-68

Influence of Condition of Impurities on Strain Orientation in Low-Alloyed Alpha Uranium, by V.E. Ivanov, et al., 13 pp.
RUSSIAN, per, Atomnaya Energiya, Vol. 24, No. 1, Jan 68, pp. 87-91.
JPRS 45,470

Effect of Cold Work on Corrosion Resistance of 2.5% Niobium-Bearing Zirconium Alloy, by I.S. Lupakov, et al., 8 pp.
RUSSIAN, per, Atomnaya Energiya, No. 1, January 1968, pp. 91-94.
JPRS 45,460

Scientific
Materials (Contd)

VAP-2 Antifriction Coating, by L. A. Gayevskiy.
RUSSIAN, per, Byulleten' Tekhniko-Ekonomicheskoy Informatsii, No 8, 1967, p 9.

*FTD-HT-23-450-68

Degradation and Thermal Aging of Polychlorophene Rubber, by Kocharyan.
RUSSIAN, per, Doklady Nauk Armyanskoy SSR, Vol 36, No 2, 1963, pp 83-87.
*NASA TT F-11,801

On the Theory of NMR in Ferromagnetics with Small Concentration of Magnetic, by Ye. A. Turov.
RUSSIAN, per, Fizika Metallov i Metallovedeniye, Vol 23, No 5, 1967, pp 786-795.

*FTD-HT-23-390-68C

Mechanical Properties of Single Crystals of a Nickel-Chromium-Titanium-Aluminum Alloy (Nimonic Type) in Different Structural Conditions, by G. I. Nosova.

RUSSIAN, per, Fizika Metallov i Metallovedeniye, Vol 23, No 6, 1967, pp 1113-1116.

*FTD-HT-23-389-68

Influence of Delta Ferrite on the Stability of Austenite and the Properties of Stainless Steel at Subzero Temperatures, by A. P. Gulyaev & N. A. Kozlova.
RUSSIAN, per, IZVEST. Akad. Nauk USSR, Metall, No 1, 1968, pp 130-134.
HB 7425

Formation of Surface Layers on Ingots During the Filling of Open-Ended Molds by Bottom Pouring, by Yu. N. Yakovlev.
RUSSIAN, per, IZVEST. VUZ-Chern. Met., Vol 1, No 3, 1958, pp 34-41.
HB 7434

Thermoionization in a Flame and Intensification of Burning by a Force Field, by M. A. Glinkov.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Uchebnykh Zavedeniy, Chernaya Metallurgiya, No 9, 1961, pp 143-152.

*FTD-MT-24-169-68

Relationship Governing the Hydrogen Reduction of Iron in Molten Ores, by V. V. Baidov.
RUSSIAN, per, Izvest VUZ Chern. Met., No 1, 1964, pp 13-19.
*BISI 6413

Scientific
Materials (Contd)

Intensification of Open Hearth Melting by Means of a New Fuel Combustion System, by G. I. Chernysh.
RUSSIAN, per, Izv. VUZ Chern. Met., No 4, 1964, pp 146-150.
*BISI 6433

The Nature of the Nitrogen Existing in Molten Silicaless Slags, by S. K. Chuchmarev.
RUSSIAN, per, Izv. VUZ Chern. Met., No 2, 1965, pp 5-9.
*BISI 6449

Certain Questions of Crystallization of Ingot of Electroslag Remelting, Report 1, by Yu. I. Afanas'yev, Yu. M. Kamenskiy.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy. Chernaya Metallurgiya, No 5, 1966, pp 73-77. PI00078368-V
FTD-MT-24-176-67

Mechanism of Metal Boiling During Vacuum Treatment in a Ladle of Unkilled Ball-Bearing Steels, by V. I. Chukhlov.
RUSSIAN, per, IYUZ. Chern. Met., Vol 10, No 1, 1967, pp 41-45.
*FTD-HT-23-418-68

Method for Determining the Red Hardness of High-Speed Steels, by V. A. Brostrem.
RUSSIAN, per, IZVEST. VUZ-Chern. Met., Vol 10, No 1, 1967, pp 142-145.
HB 7427

Relationship Between the Distribution of Materials in the Blast Furnace Throat and the Temperature Distribution in the Stack, by B. V. Aparin.
RUSSIAN, per, IZVEST. VUZ-Chern. Met., Vol 11, No 2, 1968, pp 27-31.
HB 7421

On Segregation Phenomena in Continuous Cast Steel Billets, by A. I. Chishikov.
RUSSIAN, per, IZVEST. VUZ-Chern. Met., Vol 11, No 2, 1968, pp 53-56.
HB 7420

Improving the Structure of Cast Tungsten-Molybdenum High-Speed Steel, by N. F. Silant'eva & A. A. Govorov.
RUSSIAN, per, IZVEST. VUZ-Chern. Met., Vol 11, No 2, 1968, pp 125-127.
HB 7426

Scientific
Materials (Contd)

Structural Transformations in the E1702 Alloy, by V. V. Karayacaya.
RUSSIAN, per, IYUZ. Fizika, Vol 9, No 5, 1966, pp 126-134.
*FTD-MT-24-162-68

Carbides, by T. Ya. Kosolapova.
RUSSIAN, bk, Karbidy, Metallurgiya, 1968.
PLENUM PRESS

Structure and Properties of the Cavitation Resistant Steel 30Kh 10G10, by R. I. Mints.
RUSSIAN, bk, Kavitatsiya i Gidro-Shlifuyu Shchaya Stoykost Metallov v Gidraulicheskikh Turbinakh, 1965, pp 82-87.
*FTD-HT-23-394-68

Petroleum Stocks of Kalmykia, by A.P. Oleynikova and L.P. Shul'ga, 7 pp.
RUSSIAN, per, Khimiya i Tekhnologiya Topliva i Masel, Moscow, No. 1, Jan 68, pp. 19-21.
JPRS 44,879

Status of Oil Processing in Oil Fields and Refineries of the Soviet Union, by Ya. G. Sorkin, 15 pp.
RUSSIAN, per, Khimiya i Tekhnologiya Topliva i Masel, Moscow, No. 3, 1968, pp. 1-7.
JPRS 45,387

Mechanism of Protection of Metals from Corrosion with Ammonia, by I. L. Rosenfel'd, V. P. Persiantseva.
RUSSIAN, per, Korroziya Metallov i Splavov, No 2, 1965, pp 305-314. PI00077768-V
FTD-MT-24-99-67

Atmospheric Corrosion of Steel, Zinc, Cadmium, Copper, and Aluminum in Various Maritime and Continental Regions, by G. K. Berukshtis, G. B. Klark.
RUSSIAN, per, Korroziya Metallov i Splavov, No 2, 1965, pp 332-350. PI00077768
FTD-MT-24-99-67

The Influence of Cathodic Additions on the Atmospheric Corrosion of Low Alloy Steels, by N. D. Tomashov and A. A. Lokotilov.
RUSSIAN, rpt, Korroziya i Zashchita Staloi, Moscow Mashin, 1959, pp 171-181.
*BISI 6370

Scientific
Materials (Contd)

The Effect of Transmitting Media on the Forming of Sheet Metals in Explosive Forming, by E. B. Medsyanovskiy, 10 pp.
RUSSIAN, per, Kuznechno-Shtampovoychnoye Proizvodstvo, No 4, 1965, pp 25-28.
FI00082268-V
FTD-MT-67-8

Investigation of the Operation of Cogging for (Forging) Ingots (of Steel), by G. S. Grebenyuk.
RUSSIAN, per, Kuzn.-Shfamp. Proizvodstvo, Vol 7, No 7, 1965, pp 9-14.
HB 7429

Forge Rolling of Billets in Two Passes on Rolls with Chain Pusher, by G. P. Savin, 7 pp.
RUSSIAN, per, Kuznechno-Shtampovoychnoye Proizvodstvo, No 1, 1966, pp 3-7. FI00080168-V
FTD-MT-24-191-67

Testing of Can Lacquers by Electrochemical Methods, by I. L. Rosenfeld.
RUSSIAN, per, Lak. Mat. i. Ikhn. Prim., No 5, 1967, pp 76-80.
*BISI 6437

Use of By-Products and Crude Particles to Conserve Timber, 6 pp.
RUSSIAN, per, Material'no-Tekhnicheskoye Snabzheniye, Moscow, Jan 68, pp. 43-46.
JPRS 45,197

Material and Technical Supply in the Maritime Fleet, by G. Mezentshev, 12 pp.
RUSSIAN, journal, Material'no-Tekhnicheskoye Snabzheniye, Moscow, No. 2, 1968, pp. 8-15.
JPRS 45,193

Influence of UV Radiation and Vacuum on Strength and Destruction of Polymer Films, by L. M. Polyakov, 12 pp.
RUSSIAN, per, Mekhanika Polimerov, No 3, 1966, pp 359-364. FI00078468-V
FTD-MT-24-184-67

Transformations During the Heating of Quenched White Iron, by F. K. Tkachenko & V. F. Zubarev.
RUSSIAN, per, Metallovedenie i Obrabotka Metallov, No 9, Sept 1958, pp 24-26.
HB 4352

Scientific
Materials (Contd)

Comparison of Properties of 23% Cr, 18% Ni Steels Inoculated with Rare-Earth Metals vs. Boron, by G. A. Khasin.
RUSSIAN, per, Metallurg, Vol 13, No 3, 1968, pp 14-15.
HB 7447

Defects in Continuous Cast (Steel) Slabs and Ways of Avoiding Them, by M. G. Chigrinov & V. A. Alyavdin.
RUSSIAN, per, Metallurg, Vol 13, No 3, 1968, pp 17-18.
HB 7446

Rammed Linings in Steelplant Ladles, by M. Kepka.
RUSSIAN, per, Metallurgicheskaya i Gornorudnaya Promyshlennost', No 11, 1967, pp 72-75.
HB 7406

The Deoxidation of Semikilled Steel, by Ya. A. Shneerov.
RUSSIAN, per, Metallurgicheskaya i Gornorudnaya Promyshlennost', No 1 (49), Jan/Feb 1968, pp 15-17.
HB 7438

Deoxidation of Carbon Steel by Means of Zirconium Jointly with Aluminum, by V. I. Dorokhov.
RUSSIAN, per, Metallurgiya i Koksokhimiya, No 7, 1967, pp 112-119.
HB 7416

Performance of Stopper Heads in the Continuous Casting of Steel, by E. I. Isaev.
RUSSIAN, per, Metallurgiya i Koksokhimiya, No 7, 1967, pp 119-124.
HB 7414

Method of Appraising the Lubricating Ability of High-Temperature Lubricants in a Wide Range of Temperatures, by L. A. Mayorova.
RUSSIAN, bk, Metody Otsenki Eksploataatsionnykh Svoystv Reaktivnykh Topliv i Smesochnykh Materialov, 1966, pp 110-117. FI00083068-V
FTD-MT-66-99

Appraising the Efficiency of Grease Lubricants in Ball Bearings, by A. R. Kosyakin, Ye. A. Uspenskaya.
RUSSIAN, bk, Metody Otsenki Eksploataatsionnykh Svoystv Reaktivnykh Topliv i Smesochnykh Materialov, 1966, pp 118-123. FI00083068-V
FTD-MT-66-99

Scientific
Materials (Contd)

Micrometallurgy, by B. A. Ostroumov.
RUSSIAN, per, Nauka i Zhizn', No 8, 1960,
pp 10-16; 37.
*FTD-HT-23-451-68

Obtaining Oil Fractions with a High Viscosity
Index by Deep Hydrogenation of Crude Oil, by
M. M. Dets.
RUSSIAN, per, Neftepererabotkai Neftekhimiya,
No 5, 1965, pp 6-8.
*FTD-HT-67-288

Two-Stage Deasphaltization of Asphalts from
Perm Crudes, by N.A. Butovich, 8 pp.
RUSSIAN, per, Neftepererabotka i
Neftekhimiya, Moscow, No. 3, 1968, pp. 5-7.
JPRS 45,473

Service Life of Zircon Nozzles in the Continuous
Casting of Steel, by N. M. Frolovskii.
RUSSIAN, per, Ogneupory, Vol 33, No 1, 1968,
pp 20-23.
HB 7392

Fundamentals of Metallurgy, Vol 4: Rare Metals,
by N. S. Greyver.
RUSSIAN, bk, Osnovy metalurgii, t. 4: Redkiye
metally, Moscow, Izd-vo "Metallurgiya", 1967,
pp 1-651.
*FTD-MT-24-160-68

Thermal Expansion of Some Sulfides of Transi-
tion Metals, by M. Dudnik, V. Kh. Oganessian.
RUSSIAN, per, Poroshkovaya Met., Akad Nauk Ukr
SSR, No 6(2), 1966, pp 60-62.
*FTD-HT-23-262-68

Cermets in Atomic Technology, by G.A.
Mayerson, 29 pp.
RUSSIAN, per, Poroshkovaya Metallurgiya,
Kiev, Nov 67, pp. 50-65.
JPRS 45,339

Tribulation of the Metallurgical Industry
in the Ukraine, by Ya. Sadovskiy and A.
Nizhegorodov, 6 pp.
RUSSIAN, newspaper, Pravda, Moscow, 14 March 68,
p. 2.
JPRS 45,135

Phosphate Polymers, by F. M. Perel'man.
RUSSIAN, per, Priroda, No 7, 1967, pp 68-69.
*FTD-HT-23-423-68

Scientific
Materials (Contd)

Rolling of Metal Powders, by G. A. Vinogradov
and Yu. N. Semenov, 87 pp.
RUSSIAN, bk, Prokatka Metallicheskikh Poroshkov.
Metallurgizdat. Moskva, 1960, pp 1-86.
P100080368-V
FTD-MT-67-67

Segregation Phenomena and the Mechanism of
Formation of Honeycomb Blowholes in Rimmed-
Steel Ingots, by A. N. Morozov & V. S. Reprintsev.
RUSSIAN, per, 'Slitok i Svoistva Stali', 1961,
pp 88-95.
HB 7442

Statics of Thin-Walled Shells, by V. C. Chernina.
RUSSIAN, bk, Statika Tonkostennyykh Obolochek,
Nauka (FML), 1968.
PLENUM PRESS

On the Problem of Hermetic Sealing of Computer
System Ferrite Elements, by T. K. Krakau.
RUSSIAN, rpt, Trudy, Leningrad. Politehnicheskoy
Institut. Teoriya i Tekhnika Vychislitel'nykh
Ustroystv, No 1, 1966, pp 166-173.
*FTD-HT-23-399-68

Moscow. Aviation Technological Institute. Trans-
actions. Heat Exchange in Extrusion Casting, by
M. N. Galkin and E. S. Stebakov, 91 pp.
RUSSIAN, per, Moscow. Aviatsonnyy Tekhnolo-
gicheskoy Institut. Trudy. Teploobmen Pri
lit'ye Vychislaniyem, No 58, 1963, pp 5-20.
P100088368-V
FTD-MT-64-257

New Iron-Containing Monomers and Polymers from
Five-Membered Naphthenes, by Ya. M. Paushtin,
T. P. Vishnyakova, 13 pp.
RUSSIAN, per, Moscow. Institut Neftekhimicheskoy
i Gazovoy Promyshlennosti. Trudy, No 44, 1963,
pp 15-26. P100080668-V
FTD-HT-67-171

Thixotropic Properties of Consistent Greases,
by V. V. Vaynshtok, B. N. Kartinin.
RUSSIAN, per, Tr Osk in-t Neftekhim i Gas Prom-
Sti, No 32, 1960, pp 116-129.
*FTD-HT-23-245-68

Formation of Carbide Coatings on Graphite in
Liquid Metals and Alloys, by N. S. Gorbunov,
et al, 6 pp.
RUSSIAN, per, Vysokotemperaturnyye Pokrytiya.
Trudy Seminara po Zharostoykim Pokrytiyam.
1967, pp 140-145.
ACST J-4565
ID 2204011768

Scientific
Materials (Contd)

Heavy Shock on a Rectangular Plate Lying on an Elastic Base, by E. Yu. Gurgov.
RUSSIAN, per, Tashgu. Vychislitel'niy Tsentr. Trudy, No 265, 1964, pp 19-23.
*FTD-HT-23-402-68

Peculiarities of Refining and Hardening of Metal During Electroslag Remelting, by V. V. Panin, S. A. Iodkovskiy, 15 pp.
RUSSIAN, rpt, Vsesoyuznoye Nauchno-Tekhnicheskoye Soveshchaniye po Voprosam Vyplavki Stali Ilya Rasnykh Otlivok. Trudy, 1963, pp 240-255.
P100080968-V
FTD-MT-24-120-67

Investigation of the Thermal Operation of a 300 t. Open Hearth Furnace, by V. I. Grankovskii.
RUSSIAN, per, Voprosy Proizv. Stali. Otdel. Tekhn. Nauk, 1965, pp 144-149.
*BISI 6432

Collision of a Body with a Plate, Lying on an Elastic Base, by Ye. F. Afanas'yev.
RUSSIAN, per, Vsesoyuznyy Simpozium Po Rasprostraneniye Uprugo-Plasticheskikh Voln v Sploshnykh Sredakh. Baku, Materialy. Baku, 1966, pp 149-158.
*FTD-HT-23-445-68C

Unloading and Warming Non-Metallic Building Materials under Winter Conditions, by A. P. Valadimirov and E. Yu. Braynin.
RUSSIAN, bk, Vyruska i Podogrev Nerudnykh Stroitel'nykh Materialov v Zimnykh Usloviyakh. *ACSI J-4768
*FSTC HT-23-25-68

An Instrument for Determining the Coefficient of Friction of Plastics, by B. M. Gershkovich and L. Yu. Savchenko.
RUSSIAN, Patent No 140259.
*FTD-HT-23-258-68B

A Method of Preparing Dielectric Films, by V. S. Krikorov, G. A. Elinov, 2 pp.
RUSSIAN, Patent No 180701 (Appl No 1005777/26-9), 4 May 1965, 1 p. P100072668
FTD-HT-23-574-67

Antifriction Lubricant, by K. A. Andrianov, Yu. N. Vasil'yev.
RUSSIAN, Patent No 181222.
*FTD-HT-23-258-68A

Scientific
Materials (Contd)

On the Stability of Austenite in White Cast Irons, by K. P. Bunin.
UKRAINIAN, per, Dopovidi Akad. Nauk UkrRSR, Series A, No 4, 1967, pp 359-362.
HB 7437

Vacuum Deoxidation of Liquid Iron by Carbon, by V. Ya. Lakoms'kii & M. M. Kalinyuk.
UKRAINIAN, per, Dopovidi Akad. Nauk, UkrRSR, Seriya A, No 1, 1968, pp 77-79.
HB 7436

An Infrared Spectroscopic Study of the Structure and Crystallization of Graham Glass, by Iv. Gutsov.
BULGARIAN, per, Izvestiya Institut Fizikakhim. Bulg. Akad. Nauk, No 4, 1964, pp 13-24.
*FTD-HT-67-173

Determination of Profile of Burden Surface in a Blast Furnace, by L. Tejzr.
CZECH, per, Byulletin Cnili and Tei Chern. Met., No 20, 1966, p 33.
HB 7408

The Development of Highly Hypereutectoid Alloy Steels for Section Rolls, by R. Kudrna.
CZECH, per, Hutn. Listy, Vol 21, No 10, 1966, pp 712-720.
BISI 6012

Development of, and Experiences in, the Use of an Oxygen/Oil Burner for Additional Heating of Electric Arc Furnaces, by Z. Kozusnik & J. Sebasta.
CZECH, per, Hutnicke Listy, Vol 22, No 1, 1967, pp 15-20.
HB 7424

Observations on Spalling of Rolling-Mill Rolls Due to Fatigue, by S. Pytko.
CZECH, per, Hutnik, Vol 29, No 5, 1962, pp 180-183.
BISI 6110

Hot Workability of Carbon Steels, by M. Zidek.
CZECH, per, Hutnik, Vol 16, No 8, 1966, pp 385-388.
BISI 5917.

Protection of Leather Against Molds, by A. Orlita & I. Orlitova.
CZECH, per, Kozarstvi, Vol 11, 1961, pp 201-203.
*ACSI J-4976
*FSTC-HT-23-181-68

Scientific
Materials (Contd)

Continuous Measurement of Dust Pick-Up Gases at the Exit of Dust Catchers in Large French Thermal Power Plants, by G. Debrun.
FRENCH, per, Pollution Atmospherique, Vol 34, Apr-June 1967, pp 84-90.
*BISI 6409

Relationship Between the Output of Ball Mills and the Amount of Feed Material, by I. Bertume.
FRENCH, per, Rev. Ind. Minerale, Vol 49, Oct 1967, pp 740-744.
*BISI 6410

Effect of the Quenching Rate on the Structure of the Quenched and Quenched-Tempered Ti-AL 6% - V4% Alloy, by A. Saulnier, 15 pp.
FRENCH, per, Revue de Metallurgie LVI, No 3, 1959.
ACSI J-4282
ID 2204003568

Comparison of Some Deep Drawing Tests, by G. Pomey.
FRENCH, per, Rev. Met., Vol 63, Oct 1966, pp 823-841.
BISI 5712

Analysis of Elast Furnace Gas by Gas-Soild Chromatography, by G. Jecko & B. Reynaud.
FRENCH, per, Rev. Met., Vol 64, July-Aug 1967, pp 681-686.
BISI 6180

Analysis of the Decoxidation Products in Carbon Steel, by P. Detres.
FRENCH, per, Rev. Met., Vol 64, Oct 1967, pp 887-896.
*BISI 6407

Automatic Operation and Study of Transient Conditions for Two Elast Furnaces Fed with Sinter, by P. Guillemain.
FRENCH, per, Rev. Met., Vol 64, Nov 1967, pp 961-986.
BISI 6275

Some Observations on the Carbides in High-Speed Steels, by L. Colombier.
FRENCH, per, Rev. Met., Vol 64, Nov 1967, pp 987-994.
BISI 6187

Scientific
Materials (Contd)

Simulations of the Controlled Rolling of Various Steels, by C. Rossard.
FRENCH, per, Rev. Met., Vol 65, Mar 1968, pp 181-195.
*BISI 6438

Contribution to the Study of Hall and Petch's Ratio in Polycrystalline Iron, by P. Violan.
FRENCH, per, Rev. Met. Mem. Sci., Vol 64, Jan 1967, pp 37-43.
BISI 5640

Application of an Equivalence Between Time and Temperature to the Study of Case-Hardening and Decarburisation, by Ph. Maynier.
FRENCH, per, Rev. Met. Mem. Sci., Vol 64, No 3, 1967, pp 203-212.
*BISI 6397

Effects of Wire Surface on Corrosion Resistance in Steel Wires for Pre-Stressed Concrete, by M. Brachet.
FRENCH, per, Rev Met Mem Sci., Vol 64, No 7-8, 1967, pp 607-614.
*BISI 6360

Analysis of Some Light Elements in Various Materials by Activation with Charged A and P particles, by Chas. Engelmann.
FRENCH, per, Symposium on Radiochemical Methods of Analysis, 1965, pp 405-418.
Dept of Navy NIC tr 2578

Process for Making Porous Electrodes from Powdered Metals, by Renato Di Pasquale.
FRENCH, Patent No 1,155,740.
Dept of Commerce
Patent Office

Structural Changes and Their Effect on Creep Rupture Strength. Example of a Chromium-Molybdenum Steel, by A. Krisch & F. K. Naumann.
GERMAN, per, Arch. Eisenh., Vol 37, Sept 1966, pp 749-757.
BISI 6214

The Present State of X-ray Determination of Stresses, by V. Hauk.
GERMAN, per, Arch. Eisenh., Vol 38, Mar 1967, pp 233-240.
BISI 5624

Scientific
Materials (Contd)

Electrochemical Investigations of Metallurgical Reactions with Solid Oxides and Phosphates as Electrolytes, by W. A. Fischer.
GERMAN, per, Arch. Eisenh., Vol 38, June 1967, pp 422-429.
BISI 6054

The Dynamics of Planetary Mills, by H. G. Muller & W. Aggermann v. Bellenberg.
GERMAN, per, Arch. Eisenh., Vol 38, Jul 1967, pp 519-525.
BISI 6317

Viscosity Measurements of Slags, by H. J. Langhammer & H. G. Geck.
GERMAN, per, Arch. Eisenh., Vol 38, Sept 1967, pp 691-699.
*BISI 6411

Study of the Diffusion Equilibrium of Crystal Segregation of Manganese, Chromium, Nickel, Vanadium, Phosphorus, Sulphur and Carbon in Specimens Containing Artificial Segregation, by W. Peter and H. Finkler.
GERMAN, per, Arch Eisen. Vol 38, Oct 1967, pp 775-783.
*BISI 6366

Combined Rapid Determination of Oxygen and Nitrogen in Steel by the Helium Carrier-Gas Method, by W. Koch & H. Lemm.
GERMAN, per, Archiv Eisenh., Vol 38, No 12, 1967, pp 881-885.
HB 7364

Stresses Set up in the Bar, Straightening Force and Drive Torque when Straightening Round Bars in Two-Roll Straightening Machines, by O. Pawelski & R. Fangmeier.
GERMAN, per, Arch. Eisenh., Vol 38, Dec 1967, pp 887-898.
BISI 6316

Contribution to the Study of the Red Shortness of Low-Carbon Unkilled Steels, by W. Scholz & N. Dautenberg.
GERMAN, per, Archiv Eisenhüttenwesen, Vol 38, No 12, 1967, pp 915-920.
HB 7365

Dephosphurisation when Injecting Powder Line by Oxygen into Molten Steel, by E. Forster.
GERMAN, per, Arch. Eisenh., Vol 39, Jan 1968, pp 1-8.
*BISI 6394

Scientific
Materials (Contd)

Investigation of Slag Constitution in the Basic Oxygen Process when Blowing High-Phosphorus Hot Metal, by W. Fix & K. Koch.
GERMAN, per, Arch. Eisenh., Vol 39, Jan 1968, pp 9-22.
BISI 6306

Longitudinal Elongations and Distortions Encountered in the Roll Forming of Sections from Steel Strip, by G. Weimar.
GERMAN, per, Arch. Eisenh., Vol 39, Jan 1968, pp 37-44.
BISI 6272

The Effect of Nitrogen Levels Between 0.002 and 0.016% in Pure Iron Containing 0.002 to 0.065% C and 0.001 to 0.0163% O on the Mechanical Properties and Brittle Fracture Behaviour After Normalizing and Artificial Ageing, by W. A. Fischer.
GERMAN, per, Arch. Eisenh., Vol 39, Jan 1968, pp 57-67.
*BISI 6395

Investigations by Means of the Electron Beam Microprobe on the Causes of the Heterogeneity of Welds when Welding Plain Carbon and Low Alloy Steels, by F. Erdmann-Jesintzer & P. Kraljic.
GERMAN, per, Arch. Eisenh., Vol 39, Jan 1968, pp 77-87.
*BISI 6396

Electrochemical Determination of the Oxygen Partial Pressures in Steam Hydrogen Mixtures and Iron Melts Containing Oxygen, by W. A. Fischer and D. Janke.
GERMAN, per, Arch Eisenh. Vol 39, Feb 1968, pp 89-99.
*BISI 6389

Effect of Carbon, Nitrogen and Boron on the Precipitation Behaviour of an Austenitic Steel Containing About 16% Cr, 2% Mo, 16% Ni and NIOBIUM, by H. Gerlach & E. Schmidtman.
GERMAN, per, Arch. Eisenh., Vol 39, Feb 1968, pp 139-149.
*BISI 6450

Properties of Non-Stabilised Fully Austenitic Steels for Use in Reactor Construction and Steam Plant Service, by H. R. Kauts & H. Gerlach.
GERMAN, per, Arch. Eisenh., Vol 39, Feb 1968, pp 151-158.
*BISI 6446

Scientific
Materials (Contd)

Studies with the Electron Probe Microanalyzer of the Causes of Inhomogeneity of Weld Deposits When Welding Austenitic Steels, by F. Erdmann-Jeanitzer.
GERMAN, per, Arch. Eisenh., Vol 39, Feb 1968, pp 159-163.
*HB 7411

Chemical Activities of Boron and Nitrogen in the Liquid Range of the Fe-B-N System at 1600° C, by H. Schenck & E. Steinmetz.
GERMAN, per, Arch. Eisenh., Vol 39, Apr 1968, pp 255-257.
*HB 7452

Continuous Measurement of Oxygen Activity and Carbon Content in the Basic Oxygen Furnace, by K.-H. Ulrich & K. Borowski.
GERMAN, per, Arch. Eisenh., Vol 39, Apr 1968, pp 259-263.
*HB 7453

Influence of Deoxidation with CaSi and of Tin Content Upon the Machinability of 0.35% C Steel, by E. Schmeer.
GERMAN, per, Arch. Eisenh., Vol 39, Apr 1968, pp 277-282.
*HB 7454

Ultrasonic Coupling to Hot Metals by Cooling their Surface, by W. Kurz & B. Lux.
GERMAN, per, Arch. Eisenh., Vol 39, Apr 1968, pp 299-306.
*HB 7455

Present State of Development of High-Strength Weldable Constructional Steels, by W. Dick & J. Degenkolbe.
GERMAN, per, Bander Bleche, Vol 6, Apr 1965, pp 213-219.
BISI 5808

Modern Gauge Control Equipment for Cold-Rolled Strip, by O. Steinbrecher.
GERMAN, per, Bander Bleche, Vol 7, No 4, 1966, pp 225-234.
BISI 6219

Production of Seamless Tubes by Extrusion and Subsequent Hot Reduction with Minimum Scrap and Loss, by K. Bohm.
GERMAN, per, Bander Bleche, Vol 8, No 1, 1967, pp 23-27.
*BISI 6426

Scientific
Materials (Contd)

Progress in Pickling Technology and Treatment of Pickling Effluents, by H. Dembeck.
GERMAN, per, Bander Bleche, Vol 8, Sept 1967, pp 612-625.
BISI 6036

Roll Seam Welding of Galvanized Steel Sheet, by F. J. Ganowski.
GERMAN, per, Bander Bleche, Vol 9, No 2, 1968, pp 80-87.
*BISI 6399

Precision Forged Turbine Blades-Manufacture, Properties and Materials, by H. Tarmann.
GERMAN, per, Berg- Hutten, Monatsh., Nov 1967, pp 351-361.
BISI 6240

Hydromechanical Descaling in Rolling Mills at Working Pressures of up to 200 Atm, by H. Hojas & R. Rheindt.
GERMAN, per, Berg- Hutten, Monatsh., Nov 1967, pp 372-379.
BISI 6241

The Hamburg Tube Bends, by K. H. Rehberg.
GERMAN, per, Bleche, Vol 12, Dec 1966, pp 6/2-6/10.
*BISI 6425

New Stainless and Corrosion Resistant Austenitic Steels for Chemical Plant Construction: Mechanical Properties and Corrosion Resistance, by H. Spahn.
GERMAN, per, Chemie-Ing. Techn., Vol 38, No 4, 1966, pp 407-417.
BISI 4986

Effect of Annealing in the Structure of High Speed Tool Steels, by O. Mulders & E. Kunze.
GERMAN, per, DEW-Techn. Ber., Vol 4, No 2, 1964, pp 67-74.
*BISI 6421

Influence of the Contents in Carbide Formers on the Hardenability and Retention of Hardness with High Speed Steel S12-1-4 = EV4 (S.A. 500). by H. Kunze & H. Standis.
GERMAN, per, DEW-Techn. Ber., Vol 4, No 2, 1964, pp 75-79.
*BISI 6424

Scientific
Materials (Contd)

The Mechanical Properties of High Speed Steels and Special Features in their Determination, by W. Schmidt.
GERMAN, per, IEW-Techn. Ber., Vol 4, No 2, 1964, pp 92-97.
*BISI 6420

Chemically Stable Steels and Alloys Today and in the Future, by R. Oppenheim.
GERMAN, per, IEW-Techn. Ber., Vol 7, No 2, 1967, pp 49-63.
BISI 6279

The Use of Protective and Reactive Atmospheres in the Heat Treatment of Cold-Formed Bright Steel, by W. Wirth.
GERMAN, per, Draht-Welt, Vol 53, July 1967, pp 467-472.
BISI 6156

Control of Remelt Process in a 200 kw Electron Beam Multichamber Furnace, by F. Esser & G. Scharf.
GERMAN, per, Freiburger Forschungshefte, Series B, No 122, 1966, pp 77-87.
HB 7196

The Melting of High-Duty Cast Iron in the Induction Furnace in Crystalline Lime Crucibles, by W. A. Fischer & A. Leis.
GERMAN, per, Gießereiforschung, Vol 19, No 2, 1967, pp 59-72.
BISI 5848

Desulfurisation of Cast Iron with Calcium Carbide in a Three-Ton Shaker Ladle, by E. Schurmann & W. Bohmer.
GERMAN, per, Gießerei, Vol 55, No 1, 1968, pp 7-14.
HB 7381

Experience Gained in the Quality Control of Cast Steel by Nondestructive Testing, Particularly by Ultrasonics, by R. Beyer.
GERMAN, per, Gießerei, Vol 55, No 2, 1968, pp 39-43.
HB 7395

On the Pinhole Formation in Nodular Iron (castings), by K. H. Tiesel.
GERMAN, per, Gießerei, Vol 55, No 8, 1968, pp 169-177.
*HB 7441

Scientific
Materials (Contd)

Sulphur in Cast Iron, by F. Henke.
GERMAN, per, Gießerei-Praxis, Vol 10, Jun 25, 1965, pp 245-253.
*BISI 6377

Contribution to the Determination of the Tensile Strength of Gray Cast Iron by Means of Ultrasonics, by S. Kipka & G. Pursian.
GERMAN, per, Gießereitechnik, Vol 13, No 12, 1967, pp 373-376.
HB 7397

The "Shaker Ladle" - A New Metallurgical Tool, by P. Lets.
GERMAN, per, Gießereitechnik, Vol 13, No 12, 1967, pp 377-379.
HB 7396

Influence of Residual Austenite on the Strength of Case-Hardened Specimens Under Conditions of Fluctuating Stress, C. Razin.
GERMAN, per, Hart. Techn. Mitt., Vol 23, Apr 1968, pp 1-8.
*BISI 6448

The Development of Deep-Drawing Qualities for Sheet at Hoesch, by H. Hoff & P. Werthebach.
GERMAN, per, Hoesch Ber., No 1, 1966, pp 7-15.
BISI 6215

The Present State of the Large-Scale Vacuum Treatment of Steel by the Vacuum Lifter Process, by F. Harders.
GERMAN, per, Hoesch Ber., Vol 1, No 4, 1966, pp 7-15.
BISI 5921

Investigating Arc Behaviour in a Three-Phase Arc Furnace Using a High-Speed Camera, by Ch. V. Dunski & H. Krabiel.
GERMAN, per, International Journal on Electro-heat, Nov 1963, pp 519-525.
*BISI 6417

Survey of Ironmaking Processes, by W. Wenzel & H.-W. Theises.
GERMAN, per, Klempis Fachber., Vol 73, Oct 1965, pp 429-434.
BISI 5634

Survey of Ironmaking Processes, by W. Wenzel & H.-W. Theises.
GERMAN, per, Klempis Fachber., Vol 74, Apr 1966, pp 121-127.
BISI 5635

**Scientific
Materials (Contd)**

Survey of Ironmaking Processes, by W. Wenzel & H.-W. Theisges.
GERMAN, per, Kleppzig Fachber., Vol 74, Oct 1966, pp 441-445.
BISI 5636

The Result of Metal Cutting Research on the Composition of Sintered Carbides and their Allocation to Metal Cutting Work on the Basis of the I.S.O. Allocation System, by H. Beutel.
GERMAN, per, Der Maschinenmarkt, Vol 66, Nos 11 and 19, 1966, pp 35-36; 35-41.
*BISI 6422

Influence of the Origin of Strains of *Trichoderma Viride* Pers. ex Fr. and of the Kond of Cellulose on the Enzyme Activity of Cellulase.
GERMAN, per, Material und Organismen, Vol 2, No 1, 1967, pp 30-34.
*ACSI J-4622
*FSTC HT-23-93-68

Brittle Fracture Behaviour of Quenched and Tempered Structural Steels, by J. Degenkolbe.
GERMAN, per, Materialprufung, Vol 9, Jan 1967, pp 15-19.
BISI 5927

On the Changes of Some Properties of Steel During Alternating Stresses, by G. Kirchling.
GERMAN, per, Materialprufung, Vol 9, No 2, 1967, pp 45-49.
*BISI 6423

Practical Evaluation of Fatigue Test by the Use of Probability Theory, by M. Matolcsy.
GERMAN, per, Materialprufung, Vol 9, June 1967, pp 213-217.
BISI 5806

Plasma Spraying and the Possibility of Producing Heat-Insulating Protective Coatings on Steel, by A. Matting and B. Delventhal.
GERMAN, per, Metalloberfläche, Vol 20, No 10, 1966, pp 420-434.
HB 7059

Contribution to the Study of Oxidation of Cobalt in Air at Elevated Temperatures, by J. Paidassi.
GERMAN, per, Metallurgie, Vol 62, No 11, 1965, pp 789-800.
*FTD-HT-67-146

**Scientific
Materials (Contd)**

Mechanical Properties and Practical Application of Whiskers, by N. Franssen.
GERMAN, per, Metall., Vol 20, Jan 1966, pp 22-30.
*BISI 6428

A Combined Ceramic-Metallic Air Preheater for Gas Fired Forging Furnaces, by E. Pflaume.
GERMAN, per, Neue Hütte, Vol 11, Nov 1966, pp 693-697.
BISI 5900

The Martensite Transformation with Special Reference to Thermo-Mechanical Treatment, by R. Sejnoha.
GERMAN, per, Neue Hütte, Vol 12, No 10, 1967, pp 625-630.
HB 7445

Results Obtained in the Manufacture and Use of Steelplant Ingot Molds of Nodular Iron, by K. Schneider.
GERMAN, per, Neue Hütte, Vol 12, No 11, 1967, pp 658-661.
HB 7398

Growth, Properties, and Applications of Whiskers, by E. Morgenthal.
GERMAN, per, Neue Hütte, Vol 12, No 11, 1967, pp 681-684.
HB 7376

Contribution to the Classification of Ultrasonically Detected Flaws in (Steel) Forgings, by K. Schiebold.
GERMAN, per, Neue Hütte, Vol 12, No 11, 1967, pp 691-693.
HB 7388

Combination of Continuous Casting Plants and Rolling Mills, by M. Weymar.
GERMAN, per, Neue Hütte, Vol 13, No 1, 1968, pp 18-21.
*HB 7361

Further Development of the Continuous Casting Process in the Polish Steel Industry, by I. Hydlarz.
GERMAN, per, Neue Hütte, Vol 13, No 3, 1968, pp 149-152.
*HB 7449

Scientific
Materials (Contd)

Continuous Casting of Steel and Possibilities of Direct Processing of the Sections Cast, by K. D. Lietzmann.

GERMAN, per, Neue Hütte, Vol 13, No 3, 1968, pp 152-156.

*HB 7451

The Opening Up of New Areas of Use for Zinc Coated Strip and Sheet by the Development of Continuous Wide Strip Galvanizing Lines, by R. Haarmann.

GERMAN, per, Oberflächentechnik Jahrbuch, Vol 22, 1966, pp 158-165.

BISI 6218

How Should One Tackle a Coking Problem with a New Coal?, by P. Foch & C. Meltzheim.
GERMAN, rpt, Paper B.3 Presented at the International Congress in Charleroi on Coke in the Iron and Steel Industry, 19-22 Sept 1966.

BISI 5474

Industrial-Scale Melting Tests for the Electro-thermal Production of Pig Iron from Pre-reduced Iron Ore, by F. W. Mollenkamp & W. Haiduk.
GERMAN, rpt, Paper Presented at the International Congress on the Production and Use of Reduced Ores, Evian (France), 29-31 May 1967, 12 pp.

BISI 5691

Application of Optical Control Methods in Metallography, by F. Jeglitsch & R. Mitsche.
GERMAN, per, Radex Rund., Nos 3/4, 1967, pp 587-596.

*BISI 6404

Experience in the Use of a Television Microscope in a Steel Plant, by F. Hofer.
GERMAN, per, Radex Rund., Nos 3/4, 1967, pp 794-805.

*BISI 6403

On the Influence of Type and Shape of Hot Top on the Solidification of Steel Ingots, by A. Schöberl and E. Pink.
GERMAN, per, Radex Rund., No 1, Feb 1968.

*HB 7430

Model Trials on the Flow and Degassing Kinetics in the Ruhrstahl-Heraeus Circulation Degassing Process, by G. Wintermann & K. Forch.
GERMAN, per, Rhein Stahl-Technik, Vol 4, No 2, 1967, pp 42-50.

*BISI 6416

Scientific
Materials (Contd)

Effect of the Elements Carbon, Nitrogen, and Boron on the Precipitation Behavior of an Austenitic 16% Cr, 16% Ni, 2% Mo Steel with and without the Addition of Columbium, by H. Gerlach.

GERMAN, per, Schweißen und Schneiden, Vol 20, No 2, 1968, pp 85-86.

HB 7443

Laws Governing the Primary Crystallization During Welding, by K. Wittke.

GERMAN, per, Schweisstechnik, Vol 16, No 4, 1966, pp 158-164.

HB 7448

Action of a Coupling Agent in Cementing Glass, by R. Becker & A. Gesierich.
GERMAN, rpt, Second International Symposium on Glass Fiber Reinforced Plastics, 13-17 March 1967.
Dept of Navy NIC tr 2572

Contributions to the Mechanism of the Action of Coupling Agents in Glass-Fiber-Reinforced Polyester Resins, by J. Gahde.
GERMAN, rpt, Second International Symposium on Glass Fiber Reinforced Plastics, 13-17 March 1967.
Dept of Navy NIC tr 2573

Contributions on the Deformation Process in Tensile Test Bars, by N. Davidenkov & G. Zaitsev.
GERMAN, per, Stahl und Eisen, Vol 51, No 36, 1931, pp 1116-1117.

HB 7440

Molybdenum Dies for the Extrusion of Steel Sections, by H. Braun & W. Schulte.
GERMAN, per, Stahl Eisen, Vol 86, 28 July 1966, pp 967-980.

BISI 5861

The Properties of Unalloyed Steels for the Wire Industry, by H. Beck.
GERMAN, per, Stahl Eisen, Vol 86, 11 Aug 1966, pp 1005-1014.

BISI 5449

On the Softening Under Load of Ore Sintars of Different Basicities, by E. Overkott.
GERMAN, per, Stahl Eisen, Vol 86, 8 Sept 1966, pp 1122-1128.

BISI 5684

Use of an "On-Line" Computer System for the Materials Flow in an Iron Ore Beneficiation Plant, by H. Wissel.
GERMAN, per, Stahl Eisen, Vol 87, 9 Feb 1967, pp 160-165.

BISI 5973

Scientific
Materials (Contd)

A Study of the Importance of Oxygen Exchange During Tapping, Pouring, Boil and Solidification of Rimming Open-Hearth Steel, by H. J. Langhammer. GERMAN, per, Stahl Eisen, Vol 87, 15 June 1967, pp 718-728.
*BISI 5767

Desulphurization in the Blast Furnace and Its Control by the Casting Sequence, by A. Send. GERMAN, per, Stahl Eisen, Vol 87, No 22, 1967, pp 1296-1304.
*BISI 6356

Development of a New Method of Cooling Wire Rod, by W. Geitz. GERMAN, per, Stahl Eisen, Vol 88, 11 Jan 1968, pp 14-24.
*BISI 6277

Irradiation of Hot Ingots up to 250 mm Thick During Inspection for Pipe, by J. Kugler. GERMAN, per, Stahl Eisen, Vol 88, 11 Jan 1968, pp 21-31.
*BISI 6335

Plants and Processes, by M. Schmidt. GERMAN, per, Stahl Eisen, No 88, 22 Feb 1968, pp 153-159.
*BISI 6369

Bases of Calculating the Construction of Blast Heaters to Obtain Maximum Blast Temperatures, by E. E. Hofmann. GERMAN, per, Techn. Mitt., (Essen), Vol 55, Oct 1962, pp 473-484.
*BISI 6429

Comparative Study of Hot Workability of X10NiCrWTi36 15 Steel Produced by Basic Arc Furnace Melting and After Remelting in a Multi-chamber, by K. Skuin. GERMAN, per, Technik, Vol 22, Aug 1967, pp 508-512.
*BISI 6440

Effect of Coal Dusts in Green Moulding Sands, by D. Boerisch and W. Patterson. GERMAN, rpt, 33rd International Foundry Congress, Paper 10, 1966.
*BISI 6374

Scientific
Materials (Contd)

Burners of the Pressurized Oil-Atomized Type for Boilers of Medium and High Capacity, by G. Weber. GERMAN, per, V.G.B. Mitt., No 106, Feb 1967, pp 1-11.
*BISI 6364

The Significance of Adjustments to Long-Time Creep Data, by W. Ruttmann & H. Kaes. GERMAN, per, VGB Mitt., Vol 48, Feb 1968, pp 1-9.
*BISI 6441

The Deformation of Steels Under Alternating Stress, by K. Wellinger & G. Luft. GERMAN, per, VGB Mitt., Vol 48, Feb 1968, pp 33-45.
*BISI 6447

Programme Control and Data Processing in a Wide Strip Mill, by K. Graudenz. GERMAN, per, Werk und Wir., Vol 15, Dec 1967, pp 311-315.
*BISI 6439

Factors Bearing on Stress-Corrosion Testing, by H. Kohl. GERMAN, per, Werks. Korros., Vol 19, Feb 1968, pp 97-103.
*BISI 6442

The Influence of Lattice Defects on Magnetization Processes in Ferromagnetic Single Crystals, by H. Trauble and A. Seeger. GERMAN, per, Zeit Ang Physik, Vol 21, No 4, 1966, pp 299-322.
*BISI 6378

A Comparison of X-Ray with Mechanical Measurements of Residual Stresses in Cold-Drawn Tube and Bar, by F. Bollenrath & V. Hauk. GERMAN, per, Zeitschrift Metallkunde, Vol 55, No 11, 1964, pp 655-659.
HB 7366

On the Electrochemical Behaviour of Vacuum-Melted Chromium-Nickel Steels, by T. Drews. GERMAN, per, Z. Metallk., Vol 58, No 10, 1967, pp 714-721.
*BISI 6405

Possibilities of Increasing the Strength of Steel by Thermomechanical Treatment, by A. Rose and H. P. Hougardy. GERMAN, per, Z Metallk., Vol 58, No 11, 1967, pp 747-752.
*BISI 6363

Scientific
Materials (Contd)

Multipurpose Manufacturing, Assembling and Testing Machine, by Eugen Wossner.
GERMAN, Patent No 921,609.
Dept of Commerce
Patent Office

Porous Metallized Felt, Especially for Electrodes of Electric Cells, and Method for the Production Thereof, by Lutz Horn & Rolf Dieberg.
GERMAN, Patent No 1,071,788.
Dept of Commerce
Patent Office

Diffusion of Iron in Gamma Iron Containing Titanium, by J. Prohaszka.
HUNGARIAN, per, Koh. Lapok, Vol 12, No 17, 1957, pp 269-275.
*BISI 6398

Investigating Some Factors Which Influence the Durability of Ingot Moulds, by F. Varga.
HUNGARIAN, per, Koh. Lapok Ontode, Vol 96, May 1963, pp 97-105.
BISI 5560

A Setting System with an On-Line Computer for a Tube Manufacturing Plant Employing Pilger Rolling Mills and Reducing and Stretching Mill, by R. Raimondi.
ITALIAN, per, Boll. Tecn. Finsider, Dec 1965, pp 909-917.
BISI 6131

Apparent Density Increase in "Frem" Iron Powders, by A. Domsa.
ITALIAN, per, Met Ital, Vol 59, No 7, 1967, pp 546-550.
*BISI 6362

New Sources of Iron Powder for Sinter Metallurgy, by G. Rossi.
ITALIAN, per, Met Ital, Vol 59, No 7, 1967, pp 564-581.
*BISI 6399

The Principal Metallurgical Aspects of LD Steel Production with Mechanical Hlooked Rimming and Teeming in Ingot Moulds, by M. Civaliero.
ITALIAN, per, Met. Itala, Vol 59, No 9, 1967, pp 713-722.
*BISI 6406

On the Mechanism of Wear Studied by Micrography of the Wear Product, by G. Alessandrini.
ITALIAN, per, Met Ital, No 12, 1967, pp 941-948.
*HB 7423

Scientific
Materials (Contd)

The Effects of the Deformation Process on Hot Workability of Heat Resisting Steel, by T. Ito & T. Watanabe.
JAPANESE, per, Denki Seiko, Vol 37, No 5, 1966, pp 199-207.
BISI 6031

Study on Lime Sinter. I-Effect of Basicity, Silica Content and Coke Addition Rate on Properties of Lime Sinter, by Y. Jomoto.
JAPANESE, per, Fuji Iron Steel Techn. Report, Vol 16, No 1, 1967, pp 1-6.
*BISI 6443

Study on Lime Sinter. II-On the Identification of Mineralogical Composition of Lime Sinter by X-Ray Diffraction, by Y. Jomoto.
JAPANESE, per, Fuji Iron Steel Techn. Report, Vol 16, No 1, 1967, pp 7-14.
*BISI 6444

Study on Lime Sinter. III-Relation Between Properties of Lime Sinter and Its Mineralogical Composition, by Y. Jomoto.
JAPANESE, per, Fuji Iron Steel Techn. Report, Vol 16, No 1, 1967, pp 15-23.
*BISI 6445

Outline of Slab and Plate Mill Wakayama Steel Works, Sumitomo Metal Industries Company, by M. Araiike & K. Iwasaki.
JAPANESE, per, Ishikawajima-Harima Eng. Rev., Vol 6, 1966, pp 40-57.
BISI 5934

The Present State of Cold-Forging Processes, by H. Kudo.
JAPANESE, per, J. Jap. Sec. Mech. Eng., Vol 67, Mar 1964, pp 378-385.
BISI 5996

Improvement of Productivity in Tsurumi No. 1 Blast Furnace, by T. Hasegawa.
JAPANESE, per, Nippon Kokan Techn. Rep., Vol 39, May 1967, p 10.
*BISI 6430

Conditions for the Production of High-Grade Pellets, by K. Kodama.
JAPANESE, per, Tetsu to Hagane, Vol 51, No 4, 1965, pp 581-583.
HB 7431

Scientific
Materials (Contd)

Method of Estimating the Oxidation of Pellets Reduced to Metal, by K. Kojima & H. Kahata. JAPANESE, per, Tetsu to Hagane, Vol 53, No 3, 1967, pp 202-204. HB 7401

Some Consideration on the Premature Failure of Fully Hardened Roll, by K. Sakabe. JAPANESE, per, Tetsu-to-Hagane, Vol 53, No 6, May 1967, p 611. *BISI 6393

Effect of Columbium, Vanadium, Tungsten, Yttrium, Titanium, and Copper on the Elevated-Temperature Strength of 9% Cr-1% Mo Steel. Part II of Study of Medium Chromium High-Temperature Steel, by R. Sasaki. JAPANESE, per, Tetsu to Hagane, Vol 53, No 11, 1967, pp 1251-1253. HB 7433

Spectrophotometric Determination of Very Small Boron Contents in Steel by the Solvent-Extraction Method, by Sh. Wakamatsu & M. Higuchi. JAPANESE, per, Tetsu to Hagane, Vol 53, No 11, 1967, pp 1367-1369. HB 7428

Improvements in the Manufacturing Technology of Ingot Moulds, by F. Schonberger & M. Marghescu. RUMANIAN, per, Met. (Bucharest), Vol 17, No 4, 1965, pp 184-188. BISI 5868

The Efficiency of Self Carburetting of Natural Gas Flames in Open Hearth Furnace, by D. Grecov & I. Iordache. RUMANIAN, per, Metallurgia (Bucharest), Vol 17, No 8, 1965, pp 410-414. *BISI 6434

Researches Concerning the Use of Iron Sponge for Steelmaking in Electric-Arc Furnace, by O. Hatarascu. RUMANIAN, per, Met. (Bucharest), Vol 18, No 5, 1966, pp 253-257. BISI 5871

Investigations into the Modification of Pig Iron by Treatment with Methane, by L. Sofroni & E. Nicolaiu. RUMANIAN, per, Rev. Roumaine Sci. Techn. Ser. Meta., Vol 9, No 2, 1964, pp 233-244. BISI 6171

Scientific
Materials (Contd)

Gaseous Case-Hardening, by M. P. de Andres Sanz & J. M. Bello. SPANISH, per, Tecn. Met., Vol 23, No 1, Jan-Feb 1967, pp 5-22. *BISI 6436

Gaseous Case-Hardening, by M. P. de Andres Sanz & J. M. Bello. SPANISH, per, Tecn. Met., Vol 23, No II, Mar-Apr 1967, pp 39-46. *BISI 6436

Gaseous Case-Hardening, by M. P. de Andres Sanz & J. M. Bello. SPANISH, per, Tecn. Met., Vol 23, No III, May-June 1967, pp 91-106. *BISI 6436

Influence of the Nitrogen Content on the Strain Ageing of Ferrite, by A. Josefsson & B. Backstrom. SWEDISH, per, Jernkon. Tekn. Rad., Vol 21, No 277, 1965, pp 597-630. BISI 5937

Mathematical Sciences

Necessary and Sufficient Conditions for Continuation of Solutions of Differential Equations, by A. A. Yushchenko. RUSSIAN, per, AN BSSR, Doklady, Vol 11, No 11, 1967, pp 965-966. *Dept of Navy/APL/JHU J-1156

Analytical and Numerical Methods of Celestial Mechanics, by G. A. Chebotarev. RUSSIAN, bk, Analiticheskiye i Chislennyye Metody Nebesnoy Mekhaniki, 1965, 367 pp. *FTD-HT-23-391-68C

Functional Analysis, by S. G. Kreyn, 424 pp. RUSSIAN, bk, Funktsional'nyy Analiz, 1964, pp 1-424. FI00096368-V FTD-MT-65-573

Basic Principles for the Computation of Gravitometric Deflections of the Vertical, by D. Csatkai and M. Gasso. HUNGARIAN, per, Geodesia es Kartografia, Vol 18, No 3, 1966, pp 161-166. *ACIC TC-1419

Scientific
Mathematical Sciences (Contd)

NonLinear Stationary System of Differential Equations of Heat and Mass Transfer, by M. S. Smirnov.
RUSSIAN, per, Inzhenerno-Fizicheskii Zhurnal, Vol 9, No 2, 1965, pp 250-254. P100105868-V
FTD-HT-23-854-67

An Experimental Investigation of the Effect of the Mach and Reynolds Numbers on the Structure of a Supersonic Rarefied Gas Flow in the Stagnation Region of a Blunt Body, by A. I. Ivanov.
RUSSIAN, per, Izvestiya Ak Nauk SSSR, Mekhanika Zhidkosti i Gazov, No 3, 1967, pp 108-115.
*NASA TT F-11,797

Increasing the Reliability of the Binary Counting Systems by Means of Modulo-n-Check, by I. L. Yerosh.
RUSSIAN, per, IVUZ, Priborostroyeniye, Vol 10, No 5, 1967, pp 72-74.
*FTD-HT-23-387-68

Investigation of Spectral Scheme, OIII, Utilized in Calculation of Recombination Spectra of Stars and Nebulae, I, by A. A. Nikitin, 18 pp.
RUSSIAN, per, Leningrad. Universitet. Vestnik. Seriya Matematiki, Mekhaniki i Astronomii, No 2, 1964, pp 130-143. P100097668-V
FTD-MT-64-357

On the Solution of Stokes' Problem for an Equipotential Surface Given in the Form of a Spheroid, by V. D. Andreyev.
RUSSIAN, per, Prikladnaya Matematika i Mekhanika, Vol 30, No 2, 1966, pp 410-413.
*ACIC TC-1418

N. N. Bogolyubov's Averaging Method for Stochastic Differential Equations, by V. M. Kuz'ma.
RUSSIAN, rpt, Sb. Dinamika sistem tverdykh i zhidkikh tel, Kiev, 1965, pp 35-37.
*FTD-HT-23-435-68

Calculation of Plane and Axially-Symmetrical Supersonic Flows in the Presence of Irreversible Processes, by O. N. Katskova and A. N. Krayko, 38 pp.
RUSSIAN, rpt, AN SSSR, Trudy Vychislitel'nogo Tsentra, Raschet Ploskikh i Oseisimmetrichnykh Sverkhzvukovykh Teheniy Pri Nalichii Neobratimyykh Protsssov, 1964, pp 1-44.
P100089068-V
FTD-MT-67-70

Scientific
Mathematical Sciences (Contd)

Fundamental Theorems on the Extension of Hermitian Operators and Some of their Applications to the Theory of Orthogonal Polynomials and to the Problem of Moments, by M. G. Krein & M. A. Krasnosel'skii.
RUSSIAN, per, Uspekhi Matematicheskikh Nauk, Vol 2, No 3(19), 1947, pp 60-106.
Dept of Navy/APL/JHU TG 230-T536

About Analogs of Titchmarsh's Divisor Problem, by M. B. Barban.
RUSSIAN, per, Leningrad. Universitet. Vestnik. Seriya Matematiki, Mekhaniki i Astronomii, No 4, 1963, pp 5-13. P100094768-V
FTD-MT-64-146

Investigation of One Dissipative System of the Second Order, by Yu. N. Bibikov.
RUSSIAN, per, Leningrad. Universitet. Vestnik. Seriya Matematiki, Mekhaniki i Astronomii, No 4, 1963, pp 14-26. P100094768-V
FTD-MT-64-146

Theory of Error of Runge-Kutta Method, by A. A. Kurmit.
RUSSIAN, per, Leningrad. Universitet. Vestnik. Seriya Matematiki, Mekhaniki i Astronomii, No 4, 1963, pp 35-48. P100094768-V
FTD-MT-64-146

Limit Theorems for Large Deviations When Cramer's Condition is Broken, I, by V. V. Petrov.
RUSSIAN, per, Leningrad. Universitet. Vestnik. Seriya Matematiki, Mekhaniki i Astronomii, No 4, 1963, pp 49-68. P100094768-V
FTD-MT-64-146

Investigation of Problem of Scattering in Certain Infinite Regions, II, by A. G. Ramm.
RUSSIAN, per, Leningrad. Universitet. Vestnik. Seriya Matematiki, Mekhaniki i Astronomii, No 4, 1963, pp 69-76. P100094768-V
FTD-MT-64-146

About Stability of Undisturbed Motion of System of Three Equations in One Critical Case, by Ye. T. Sofronov.
RUSSIAN, per, Leningrad. Universitet. Vestnik. Seriya Matematiki, Mekhaniki i Astronomii, No 4, 1963, pp 77-84. P100094768-V
FTD-MT-64-146

Scientific
Mathematical Sciences (Contd)

Optimal Derivation of Point on Trajectory
Corresponding to Required Method of Guiding, by
Ye. Z. Alashkov.
RUSSIAN, per, Leningrad. Universitet. Vestnik.
Seriya Matematiki, Mekhaniki i Astronomii, No 4,
1963, pp 85-91. FI00094768-V
FTD-MT-64-146

About System of Equations of Viscous Liquid in
Special Theory of Relativity, by N. B. Maslova.
RUSSIAN, per, Leningrad. Universitet. Vestnik.
Seriya Matematiki, Mekhaniki i Astronomii, No 4,
1963, pp 92-111. FI00094768-V
FTD-MT-64-146

Normal Degeneration of Boundary Problems, by
P. Ye. Tovstik.
RUSSIAN, per, Leningrad. Universitet. Vestnik.
Seriya Matematiki, Mekhaniki i Astronomii, No 4,
1963, pp 124-134. FI00094768-V
FTD-MT-64-146

Certain Statistical Problems Pertaining to One
Type of Observations, by A. M. Kagan.
RUSSIAN, per, Leningrad. Universitet. Vestnik.
Seriya Matematiki, Mekhaniki i Astronomii, No 4,
1963, pp 142-143. FI00094768-V
FTD-MT-64-146

More Precise Definition of Estimate of Least
Mean Number of Comparisons Necessary for Com-
plete Ordering of Finite Totality, by S. S.
Kislitsyn.
RUSSIAN, per, Leningrad. Universitet. Vestnik.
Seriya Matematiki, Mekhaniki i Astronomii, No 4,
1963, pp 143-145. FI00094768-V
FTD-MT-64-146

The Representation of Simple Numbers by Poly-
nomials from Two Unknowns, by D. N. Lensky.
RUSSIAN, per, Leningrad. Universitet. Vestnik.
Seriya Matematiki, Mekhaniki i Astronomii, No 4,
1963, pp 150-154. FI00094768-V
FTD-MT-64-146

Properties of Generalized Solutions of Linear
Equations of the Elliptic and Parabolic Types,
by A. V. Ivanov, 13 pp.
RUSSIAN, per, Leningrad. Universitet. Vestnik.
Seriya Matematiki, Mekhaniki i Astronomii, No 2,
1964, pp 5-15. FI00097668-V
FTD-MT-64-357

Scientific
Mathematical Sciences (Contd)

One Class of Family of Distributions, Possessing
Similar Zones, by A. M. Kagan, Yu. V. Linnik,
4 pp.
RUSSIAN, per, Leningrad. Universitet. Vestnik.
Seriya Matematiki, Mekhaniki i Astronomii, No 2,
1964, pp 16-18. FI00097668-V
FTD-MT-64-357

Study of Arithmetical Properties of Values of
Polynomials, by D. N. Lensky, 13 pp.
RUSSIAN, per, Leningrad. Universitet. Vestnik.
Seriya Matematiki, Mekhaniki i Astronomii, No 2,
1964, pp 19-28. FI00097668-V
FTD-MT-64-357

About Continuity of Solutions of Differential
Equations in a Parameter, by N. N. Petrov, 10 pp.
RUSSIAN, per, Leningrad. Universitet. Vestnik.
Seriya Matematiki, Mekhaniki i Astronomii, No 2,
1964, pp 29-36. FI00097668-V
FTD-MT-64-357

Stability of Linear Hamiltonian Equations with
Periodic Coefficients in Hilbert Space, by
V. N. Fomin, 11 pp.
RUSSIAN, per, Leningrad. Universitet. Vestnik.
Seriya Matematiki, Mekhaniki i Astronomii, No 2,
1964, pp 37-45. FI00097668-V
FTD-MT-64-357

Theory of Curves in the Minowski Space, by
B. Frank, 13 pp.
RUSSIAN, per, Leningrad. Universitet. Vestnik.
Seriya Matematiki, Mekhaniki i Astronomii, No 2,
1964, pp 46-56. FI00097668-V
FTD-MT-64-357

On Boundedness of Solutions of One System of
Differential Equations of the Third Order, by
Ye. S. Anitova, 4 pp.
RUSSIAN, per, Leningrad. Universitet. Vestnik.
Seriya Matematiki, Mekhaniki i Astronomii, No 2,
1964, pp 149-151. FI00097668-V
FTD-MT-64-357

About One Integral Equation Used in Statistics,
by D. V. Anosov, 6 pp.
RUSSIAN, per, Leningrad. Universitet. Vestnik.
Seriya Matematiki, Mekhaniki i Astronomii, No 2,
1964, pp 151-154. FI00097668-V
FTD-MT-64-357

Scientific
Mathematical Sciences (Contd)

On the Index of Deficiency of Second and Third Boundary Problems in the Domain with a Piecewise-Smooth Boundary, by G. M. Verzhbinskiy, 3 pp.
RUSSIAN, per, Leningrad. Universitet. Vestnik. Seriya Matematiki, Mekhaniki i Astronomii, No 2, 1964, pp 161-162. FI00097668-V
FTD-MT-64-357

On Solvability in $W_2(2)$ of Dirichlet Problems for a Region with a Smooth Irregular Boundary, by V. G. Maz'ya, 4 pp.
RUSSIAN, per, Leningrad. Universitet. Vestnik. Seriya Matematiki, Mekhaniki i Astronomii, No 2, 1964, pp 163-165. FI00097668-V
FTD-MT-64-357

Remark on Regularization of a Singular System of the Isotropic Theory of Elasticity, by V. G. Maz'ya, V. D. Sapozhnikova, 4 pp.
RUSSIAN, per, Leningrad. Universitet. Vestnik. Seriya Matematiki, Mekhaniki i Astronomii, No 2, 1964, pp 165-167. FI00097668-V
FTD-MT-64-357

Calculation of Axisymmetric Nozzles Taking into Account Equilibrium Physical-Chemical Transformations, by U. G. Pirumov, V. A. Rubtsov, 13 pp.
RUSSIAN, per, Moscow. Universitet. Vychislitel'nyy Tsentr. Sbornik Rabot, No 2, 1963, pp 48-60. FI00088268-V
FTD-MT-67-29

Convergence Rates of Projection Methods for Certain Nonstationary Problems, by V. K. Demyanovich.
RUSSIAN, per, Vestnik Leningrad Univer, Matematika Mekhanika, Astronomiya, Vol 22, No 10, 1967, pp 147-152.
*NASA TT F-11,815

Calculation of the Flow Past a Rectangular Small-Aspect Wing on the Basis of Unsteady Theory, by B. B. Bukhovtsev.
RUSSIAN, per, Vestnik Moskovskiy Universitet. Seriya I - Matematika, Mekhanika, Vol 23, Jan-Feb, 1968, pp 82-90.
*NASA TT F-11,823

A Matrix Algorithm of Solution of Linear Differential Equations and Systems of Them, by Yu. I. Borshoh.
RUSSIAN, per, Zh. Vychislit. Mat. i Mat. Fiz., Vol 7, No 6, 1967, pp 1385-1392.
*Dept of Navy/APL/JHU J-1159

Scientific
Mathematical Sciences (Contd)

The Use of Statistical Methods in the Determination of an Optimum System for the Maintenance of Motor Vehicles, by B. Stephan.
GERMAN, per, Militartechnik, No 9, 1967, pp 399-402.
ACSI J-3918
ID 2204058967

Deflections of the Vertical. Volume I: Formulas and Tables, as Well as Some Numerical Results for Northern Germany, by F. R. Helmert.
GERMAN, bk, Veroffentlichung des Koniglichen Preussischen Geodatischen Instituts, 120 pp.
*ACIC TC-1420

On the Hypotheses Pertaining to the Determination of the Geoid, by H. Moritz.
GERMAN, per, Zeitschrift fur Vermessungswesen, Vol 87, Issue No 4, Apr 1962, pp 138-145.
ACIC TC-1356

Estimation of the Weights of the Error Equations in the Adjustment by Observation Equations, by K. Kubik.
GERMAN, per, Zeitschrift fur Vermessungswesen, Vol 92, No 5, 1967, pp 173-178.
*ACIC TC-1423

On Numerical Thinnings, by D. Klepac.
SERBO-CROATIAN, per, Sumarski List 87, (1/2), 1963, pp 1-9.
*CFSTI TT 68-50100

Mechanical, Industrial, Civil & Marine
Engineering

Automation of Processes of Welding and Working by Pressure, by G. A. Nikolayev.
RUSSIAN, bk, AN SSSR. Gosudarstvennyy Nauchno-Issledovatel'skiy Institut Mashinovedeniya, Avtomatizatsiya Protsessov Svarki i Obrabotki Davleniyem, Moscow, Nauka, 1966, pp 3-105.
*FTD-MT-24-200-68

Modular Design of Continuous Action Controllers for General Industrial Use, by A. I. Birman, A. A. Tagayevskaya.
RUSSIAN, rpt, AN SSSR. Institut Avtomatiki i Telemekhaniki, 1966, pp 71-80.
*FTD-MT-24-86-68

Scientific
Mechanical, Industrial, Civil & Marine
Engineering (Contd)

Aviation Anti-Friction Bearings, by
R. V. Korostashevskiy and A. M. Zaytsev, 332 pp.
RUSSIAN, bk, Avistionnyye Podshipniki Kacheniya,
1963, pp 1-340. F100094368-V
FTD-MT-65-372

Automatic Adjustment and Control (Chapters 5-8),
by Ye. P. Popov, 130 pp.
RUSSIAN, rpt, Avtomaticheskoye Regulirovaniye i
Upravleniye, 1966, pp 182-382. F100096268-V
FTD-MT-24-127-67

Ninth All-Union Conference on Pneumo-
hydroautomatics, by T.K. Yefremova, et al,
8 pp.
RUSSIAN, per, Avtomatika i Telemekhanika,
Moscow, No. 1, 1968, pp. 204-208.
JPRS 45,364

New Plans in Construction and Architecture,
by N.P. Bylinkin, 8 pp.
RUSSIAN, per, Byulleten' Stroitel'noy
Tekhniki, Moscow, March 68, pp. 1-5.
JPRS 45,195

New Regulations for Construction and In-
stallation Laboratories, 5 pp.
RUSSIAN, per, Byulleten' Stroitel'noy
Tekhniki, Moscow, March 68, pp. 8-10.
JPRS 45,195

Standard Designs of Industrial Underground
Structures, 7 pp.
RUSSIAN, per, Byulleten' Stroitel'noy
Tekhniki, Moscow, 1967, No. 9, pp. 28-31.
JPRS 45,267

AVK-2 Coolant Lubricant Fluid, by A. V. Kurakin.
RUSSIAN, rpt, Description of Invention No 176353
Opisaniye Izobreteniya, 28 Dec 1965, pp 1-2.
*ACSI J-4915
*FSTC-HT-23-174-68

Pyromechanism for Activation of Parachutes, by
V. V. Simov.
RUSSIAN, rpt, Description of Invention No 19740
Opisaniye Izobreteniya, 29 Jul 1967.
*ACSI J-4911
*FSTC-HT-23-170-68

Scientific
Mechanical, Industrial, Civil & Marine
Engineering (Contd)

Thermo-Mechanical Method of Converting Cellulose
into a Readily Hydrolizable State, by
A. V. Krupnova & V. I. Sharkov.
RUSSIAN, per, Gidroliznaya i Lesokhimicheskaya
Proyshlennost, Vol 16, No 3, pp 8-10.
ACSI J-4460
ID 2204008968

Prerequisites for Water Storage Power Plant,
by N.N. Kuznetsov, et al, 6 pp.
RUSSIAN, journal, Gidrotekhnicheskoye
Stroitel'stvo, Moscow, Dec 67, pp. 5-8.
JPRS 44,879

On the Theoretical Analysis of the Oscillatory
Propagation of Flame in Tubes, by S. K. Aslanov.
RUSSIAN, per, Inzhenerno-Fizicheskiy Zhurnal,
Vol 7, No 3, 1964, pp 118-120.
*FTD-HT-23-392-68

The Effect of the Reynolds Number on TIP Losses,
by V. A. Chernikov, A. S. Maksudian.
RUSSIAN, per, AN. ARSSR. Izvestiya. Seriya.
Tekhnicheskikh Nauk, Vol 20, No 2, 1967, pp 53-
59.
*FTD-HT-23-247-68

Investigating One Class of Extremum Systems of
Discrete Action Under the Influence of Random
Interferences, by N. M. Aleksandrovskiy and
N. Ye. Madzharov, 10 pp.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh
Zavedeniy. Elektromekhanika, No 7, 1965,
pp 733-739. F100080768-V
FTD-MT-24-116-67

Magnetic System with Steel for Magnetohydro-
dynamic Generators, by O. B. Bul.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh
Zavedeniy (Elektromekhanika), No 12, 1967,
pp 1333-1340.
*ACSI J-4847
*FSTC HT-23-134-68

Slipping Stall, by A. I. Pryadilov, 12 pp.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh
Zavedeniy. Energetika, No 5, 1963, pp 67-75.
F100078068-V
FTD-MT-24-175-67

Scientific
Mechanical, Industrial, Civil & Marine
Engineering (Contd)

Static Response of a Gasodynamic Bearing to Angular Displacement of Journal Axis, by Yu. R. Ivanov.
RUSSIAN, per, IVUZ. Priborostroyeniye, Vol 10, No 7, 1967, pp 112-115.
*FTD-HT-23-417-68

Peculiarities of Micro-Impact Loading During Cavitation-Abrasion Interactions, by I. N. Bogachev.
RUSSIAN, bk, Kavitatsiya i Gidro-Shlifuyu Shchaya Stoykost Metallov v Gidraulicheskikh Turbinakh, 1965, pp 37-40.
*FTD-HT-23-394-68

Cavitation and Cavitative-Abrasive Wear During Flow Across Rectangular Projections in a Hydro-Abrasive Stream, by S. P. Kozyrev.
RUSSIAN, bk, Kavitatsiya i Gidro-Shlifuyu Shchaya Stoykost Metallov v Gidraulicheskikh Turbinakh, 1965, pp 41-44.
*FTD-HT-23-394-68

Investigation of the Cavitation Resistance and Kinetics of Cavitation Damage to Metallic, by V. V. Gavranek.
RUSSIAN, bk, Kavitatsiya i Gidro-Shlifuyu Shchaya Stoykost Metallov v Gidraulicheskikh Turbinakh, 1965, pp 88-94.
*FTD-HT-23-394-68

Improving Use of Reserves in Kazakhstan Motor Transport, by I. Fokin, 5 pp.
RUSSIAN, np, Kazakhstanskaya Pravda, Alma-Ata, 14 March 68, p. 2.
JPRS 45,193

Containers for the Storage and Transport of Liquid Nitrogen and Oxygen, by M.G. Kaganer et al, 10 pp.
RUSSIAN, per, Khimicheskoye i Neftyanoye Mashinostroyeniye, No. 12, 1967, pp. 12-15.
JPRS 45,202

Calculating Thermal Insulation for Refrigerated Ship's Compartments, by A.A. Rabinerson, 14 pp.
RUSSIAN, per, Kholodil'naya Tekhnika, Jan 68, pp. 18-23.
JPRS 45,411

Scientific
Mechanical, Industrial, Civil & Marine
Engineering (Contd)

Machine Building (Chapter IV), by V. P. Romanovskiy, 43 pp.
RUSSIAN, bk, Mashinostroyeniye, 1965, pp 305-337. F100089268-V
FTD-MT-67-09

Machine Building (Section 43 and 44), by V. P. Romanovskiy, 14 pp.
RUSSIAN, bk, Mashinostroyeniye, 1965, pp 393-402. F100089668-V
FTD-MT-67-55

Reliability Indices of Some Elements of Automatic Systems, by V. F. Yevstratov & Yu. V. Tul'chinskii.
RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya Proizvodstva, No 1, 1966, pp 43-45. P200099768
RSIC-777

Mechanization Means Created in TzKBA of GUNTMAH, by G. V. Pavlov.
RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya Proizvodstva, No 1, 1968, pp 21-26.
*ACSI J-4795
*FSTC HT-23-40-68

New Wholesale Prices for Structural Steel, by Ye. S. Sivitskiy, 7 pp.
RUSSIAN, per, Montazhnnye i Spetsial'nyye Raboty v Stroitel'stve, Moscow, No. 3, 1968, pp. 24-26.
JPRS 45,335

Ideal Magnetization of Ferrite Cores with Rectangular Hysteresis Loop which are Used as Elements of Analog Memory, by V. P. Zinkevich.
RUSSIAN, per, Moscow. Institut avtomatiki i telemekhaniki. Voprosy tekhnicheskoy kibernetiki. Izd-vo Nauka, 1966, pp 80-85.
*FTD-HT-23-421-68

Teaching a Machine to Recognize Patterns without Reward, by A. A. Dorofeyuk.
RUSSIAN, per, Moscow. Institut avtomatiki i telemekhaniki. Voprosy Tekhnicheskoy Kibernetiki, 1966, pp 102-115.
*FTD-HT-23-432-68

Recent Achievements of Drilling Techniques Institute, by V. Brodskiy, 7 pp.
RUSSIAN, per, Neftyanik, Moscow, No. 3, 1968, pp. 16-17.
JPRS 45,336

Scientific
Mechanical, Industrial, Civil & Marine
Engineering (Contd)

Fitting Out a Refrigerated Medium Trawler for
Shrimp Fishing, by L. M. Levin and
G. A. Matrenichev.
RUSSIAN, per, Rybnoe Khoz, Vol 44, No 1, 1968,
pp 50-51.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

A Device for Keeping the Cod End of a Trawl
Open, by L. I. Denisov.
RUSSIAN, per, Rybnoe Khoz, Vol 44, No 1, 1968,
p 55.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Apparatus for Calibrating Trawl Depth Recorders
— 150, 200, 300, 400.
RUSSIAN, per, Rybnoe Khoz, Vol 44, No 1, 1968,
p 60.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Unification of Piston Engines of Building and
Roadbuilding, Agricultural and Transport
Machines, by A. S. Orlin and A. M. Malyavinskiy.
RUSSIAN, per, Standarty i Kachestvo, No 8, 1967,
pp 12-13.
*ACSI J-4835
*FSTC HT-23-120-68

Construction and Architecture (Kiev).
RUSSIAN, per, Stroitel'stvo i Arkhitektura
(Kiev), June 1967, pp 10-12.
DIA LN 606-68

Machine Building Industry Outlines 1968 Goals,
5 pp.
RUSSIAN, per, Stroitel'nyye i Dorozhnyye
Mashiny, Moscow, Jan 68, pp. 1-2.
JPRS 45,190

New Bulldozer With Blasting Device Designed,
by A.A. Yarkin, 5 pp.
RUSSIAN, per, Stroitel'nyye i Dorozhnyye
Mashiny, Moscow, Jan 68, pp. 9-10.
JPRS 45,190

Scientific
Mechanical, Industrial, Civil & Marine
Engineering (Contd)

Problems of Cavitation.
RUSSIAN, per, Sudostroyeiva, 1966, pp 243-285.
*Dept of Navy NIC

Strength of Ship Navigating in Ice, by
Yu. N. Popov.
RUSSIAN, bk, Sudostroyeiva, 1967, 223 pp.
*ACSI J-4623
*FSTC HT-23-96-68

"Consumptionless" Turbine - This is Possible,
by A. Dobrotvorskiy.
RUSSIAN, per, Tekhnika - Molodezhi, No 2, 1967,
p 37.
*FTD-HT-23-415-68

Building Railway Tunnel During the Soviet Rule,
by U. A. Limanov, 7 pp.
RUSSIAN, per, Transportnoye Stroitel'stvo,
Jul 1968, pp 3-6.
DIA LN 205-68

Oscillations of a Linear Vibrator as a Random
Process, by V. I. Osorin.
RUSSIAN, per, Trudy Leningradskogo Politekhicheskogo
Instituta, No 210, 1960, pp 171-198.
*FTD-MT-24-199-68

Investigation of Low-Capacity High-Pressure
Stages of Centrifugal Compressors, by
S. A. Anisimov, Yu. B. Galerkin, 18 pp.
RUSSIAN, per, Leningrad, Politekhicheskii
Institut, Trudy, No 228, 1963, pp 63-78.
F100082568-V
FTD-MT-24-174-67

Investigation of Channel Vaned Diffuser of
Centrifugal Compressor Under Variable Condi-
tions, by N. N. Bukharin, 17 pp.
RUSSIAN, per, Leningrad, Politekhicheskii
Institut, Trudy, No 247, 1965, pp 75-85.
F100077068-V
FTD-MT-24-122-67

Effect of Air Excess on Pressure Amplitude
During Vibration Combustion, by B. D. Katnel'son.
RUSSIAN, per, Leningrad, Tsentral'nyy nauchno-
issledovatel'skiy i proyektno-konstruktor'skiy
kotloturbinnyy institut, Trudy, Teoriya i
praktika pul'satsionnogo goreniya, No 64, 1965,
pp 51-54.
*FTD-MT-24-163-68

Scientific
Mechanical, Industrial, Civil & Marine
Engineering (Contd)

The Stability of a Wedge-Shaped Airfoil in a Supersonic Flow, by A. A. Ismailov, 11 pp.
RUSSIAN, per, Vestnik Moskovskogo Univ, Ser Mat Mekhan, No 1, 1967, pp 103-110.
Dept of Navy/APL/JHU TG 230-T544

Air Cushion Vehicles, by Ye. Simakov.
RUSSIAN, bk, Vozdushnyye Vozdekhody.
*ACSI J-4789
*FSTC HT-23-26-68

Contemporary State of the Production of Bent Profiles in the USSR and Abroad, by I. S. Trishevskiy, G. B. Donets, 18 pp.
RUSSIAN, bk, Vysokoeconomichnyye Gnutyye Profili Prokata, 1965, pp 7-20. FI00093868-V
FTD-MT-67-14

Automated Management Systems, by I. Stal'noy and A. Manev, 5 pp.
RUSSIAN, per, Zhishchnoye, Stroitel'stvo.
Moscow, No. 3, 1968, pp. 7-8.
JPRS 45,335

Oil Pipelines Between Red Sea and Mediterranean Sea, by Hamdi Tamam, 10 pp.
ARABIC, per, Al-Ahram, Cairo, 23 April 68, p. 3.
JPRS 45,436

Mounting Railroad Bridges by Means of New Crane Wagons, by Adolf Sustacek, 22 pp.
CZECH, per, Insanyrsky Stravby, No 7, 1967, pp 97-104.
DIA LN 584-68

The X T 138 MT-CN22 Semi-Trailer.
CZECH, per, Technika Prace, No 10, 1967.
ACSI J-4593
ID 2204012968

The CP 12 Tank Truck.
CZECH, per, Technika Prace, No 11, 1967, 4 pp.
ACSI J-4600
ID 2204013368

Construction and Design of the T 138 C-11 Tank Truck.
CZECH, per, Technika Prace, No 11, 1967, 3 pp.
ACSI J-4600
ID 2204013368

Scientific
Mechanical, Industrial, Civil & Marine
Engineering (Contd)

Testing of Water Proof and Water Repellent Textiles, by J. Strecky.
CZECH, per, Textil, No 2, 1966, pp 74-75.
ACSI J-4410
ID 2204007368

New Central Control at Copenhagen Main Station, 14 pp.
DANISH, per, Dansk Lokomotiv Tidende, No 12, Dec 1967, pp 4-9; 13.
DIA LN 702-68

Guidelines for the Installation of New Signals.
DANISH, per, Dansk Lokomotiv Tidende, No 12, Dec 1967, pp 4-9; 13.
DIA LN 702-68

Measurements of Pressure on Board Her Majesty's Ship "Van Galen" during the Testing of the 4".5 Gun.
DUTCH, rpt, Rvo-Ino Opdracht TL 8598, 23 Jan 1967.
ACSI J-4466
ID 2204009468

Captain Mann - US Naval Support Force Antarctica, by Patrick Arnaud.
FRENCH, per, C. R. Acad Sc, Paris, Vol 261, 5 Jul 1965, pp 265-266.
Dept of Navy NIC tr 2588

Trans-Cameroon Railway Nears Completion, 5 pp.
FRENCH, per, Europe France Outre-Mer, Paris, Feb 68, pp. 53-56.
JPRS 45,413

French Repair Trucks/Shop Vans.
FRENCH, rpt, French Repair Trucks/Shop Vans.
*ACSI J-4879
ID Incl to 2832000266
*FSTC-HT-23-154-68

Status of the Results of the Exploratory Investigations Concerning the Effects and Behavior of Projectiles in Models Simulating Living Matter-Final Report.
FRENCH, rpt, Franco-German Research Institute St Louis France Technical Report.
*ACSI J-4903
*FSTC-HT-23-155-68B

Scientific
Mechanical, Industrial, Civil & Marine
Engineering (Contd)

The Ventilation Computing Centre of the Lorraine Coal Mines and Its Ventilation Simulator, by E. Simode, FRENCH, per, Rev Ind Minerale, Vol 49, Oct 1967, pp 706-728.
*BISI 6365

Concrete Plant for Berlin Construction Sites, by Juergen Ledderboge, 9 pp.
GERMAN, per, Bauplanung-Bautechnik, Berlin, Vol. XXII, No. 3, 1968, pp. 123-126.
JPRS 45,294

The Diesel Hydraulic Locomotive 2000 HP V200 C. GERMAN, per, Deutsche Eisenbahn Technik, Mar 1967, pp 112-115.
DIA LN 106-68

Four Axle Mechanized Refrigerator Cars with Compartment for the Crew.
GERMAN, per, Deutsche Eisenbahn Technik, Mar 1967, pp 143-145.
DIA LN 106-68

Four Axle Car with Power Plant, Type DM 40 Transit.
GERMAN, per, Deutsche Eisenbahn Technik, Mar 1967, pp 146-149.
DIA LN 106-68

New Container Car for Highly Valuable Freight, from the VEB Railroad Car Construction Plant in Niesky.
GERMAN, per, Deutsche Eisenbahn Technik, Mar 1967, pp 150-152.
DIA LN 106-68

Railroad Swing Cranes EDK 500, 60 pp.
GERMAN, per, Deutsche Eisenbahn Technik, Mar 1967, pp 156-157.
DIA LN 106-68

Railway Exhibits From Hennigsdorf, by Horst Weber, 8 pp.
GERMAN, journal, Deutsche Eisenbahntechnik, Vol. 3, March 68, pp. 106-108.
JPRS 45,182

Transcontainer Transport and Handling Equipment, by G. Hanssman.
GERMAN, per, Foerdern und Heben, Vol 18, No 2, 1968.
*ACSI J-4893
*FSTC-HT-23-57-68

Scientific
Mechanical, Industrial, Civil & Marine
Engineering (Contd)

Stern-Ramp Trawler TIKO I.
GERMAN, per, Hansa, No 10, May 1967.
Dept of Commerce
Maritime Admin

Freely Moving Transcontainer Transport and Handling Equipment, Part 4, by G. Haussmann.
GERMAN, per, International Foerdern und Heben, Jan 1968, pp 48-50.
*ACSI J-4892
*FSTC-HT-23-58-68

Judging Vehicle Engines on the Basis of their Characteristics, by E. Schesky.
GERMAN, per, Militartechnik, No 10, pp 449-452.
*ACSI J-4891
*FSTC-HT-23-146-68

Selected Articles on Conveyors.
GERMAN, per, Schweizer Industrie Blatt, No 3, 10 Feb 1968, pp 53-67.
*ACSI J-4834
*FSTC HT-23-137-68

Water Supply; Sewage Treatment Organization, by Eberhard Voigt, 19 pp.
GERMAN, per, Wasserwirtschaft-Wassertechnik, E. Berlin, March 68, pp. 82-88.
JPRS 45,313

VVB For Chemical Facilities as Engineering Center, by Erich Pasold, 6 pp.
GERMAN, per, Die Wirtschaft, 28 Feb 68, p. 7.
East Berlin.
JPRS 45,182

Survey of GDR Construction Industry, 9 pp.
GERMAN, per, Wochenbericht, Berlin, Vol. XXXV, No. 14, 4 April 68, pp. 83-86.
JPRS 45,294

Railroad Building Construction Tasks.
HUNGARIAN, per, Vasut, No 11, 1967, pp 13-14.
DIA LN 695-68

Dynamic Performance of Blade Rows, by Hiroyuki Takata.
JAPANESE, per, Journal of the Faculty of Engineering, Tokyo University, Series A, No 5, 1967, pp 28-29.
*NASA TT F-11,838

Scientific
Mechanical, Industrial, Civil & Marine
Engineering (Contd)

An Experimental Study of the Effectiveness of
Anti-Pitching Tanks, by E. Tasaki.
JAPANESE, rpt, Spring Meeting of Ship Construction,
May 1965, pp 72-84.
*NASA TT F-11,831

On Wave-Excitation Free Ship Forms, by S. Motora.
JAPANESE, rpt, Spring Meeting of Ship Construction,
May 1965, 14 pp.
*NASA TT F-11,832

Operating Safety in Connection with Unattended
Engine Rooms Aboard Ship, by H. V. Ellingsen.
NORWEGIAN, per, Teknisk Ukeblad, Vol 114, No 28,
10 Aug 1967, pp 485-491.
Dept of Commerce
Maritime Admin

Methods of Track Maintenance Are Being Revised.
NORWEGIAN, per, Vart Yrks, No 1, 17 Aug 1965,
pp 2-3.
DIA LN 148-68

Water Management Problems Aired, 6 pp.
POLISH, per, Gospodarka Wodna, No. 1,
Warsaw, Jan 68, pp. 1-2.
JPRS 45,180

Polish Shipbuilding Industry Production and
Exports in 1968, by Izabela Dzieduszycka,
9 pp.
POLISH, per, Handel Zagraniczny, Warsaw,
March 68, pp. 115-119.
JPRS 45,382

Preliminary Pulse Selection System for Use with
a Reverse Counter, by A. Wojciak.
POLISH, per, Pomiary, Automatyka, Kontrola,
No 3, 1967, pp 136-137.
*FTD-HT-23-398-68

Four-Axis Roofed Freight Car of Kky (Gas) Series
of Type 401K, 5 pp.
POLISH, per, Przeglad Kolejowy Przewozowy,
No 6, June 1967, pp 28-29.
DIA LN 632-68

Steam-Engine Locomotives, by J. Fljalkowski,
11 pp.
POLISH, per, Przeglad Kolejowy Mechaniczny,
No 11, 1967, pp 317-321.
DIA LN 645-68

Scientific
Mechanical, Industrial, Civil & Marine
Engineering (Contd)

The Two Axel Covered Cars of the Kddet Series,
5 pp.
POLISH, per, Przeglad Kolejowy Przewozowy,
No 7, Jul 1967, pp 26-28.
DIA LN 633-68

Two Axel Lime Wagons of the SDDW (T) Series,
5 pp.
POLISH, per, Przeglad Kolejowy Przewozowy,
No 11, 1967, pp 25-26.
DIA LN 635-68

Containers - New Method for Freight Transship-
ment, by Z. Czerminski, 6 pp.
POLISH, per, Tygodnik Morski, No 51 (499),
17 Dec 1967, p 7.
DIA LN 568-68

Mechanical Scutcher, by Roman Maksymowicz.
POLISH, per, Zolnier Polski, No 50 (1019), 1967.
*ACSI J-4964
*FSTC-HT-23-36-68

Housing Construction in Serbia, by Dusan
Jeremic, 6 pp.
SERBO-CROATIAN, per, Izgradnja, Belgrade,
April 68, pp. 40-43.
JPRS 45,214

Design and Construction of the Danube-
Tisa-Danube Waterway and Land Reclama-
tion System, 1947-1967, by D. Milovanov,
12 pp.
SERBO-CROATIAN, per, Tekhnika, Belgrade,
March 68, pp. 389-393
JPRS 45,137

Private Housing Construction, by Daniel Vojtko,
9 pp.
SLOVAK, per, Demografie, Prague, Feb 68,
pp. 27-32.
JPRS 45,206

Americans Plan Amazon Inland Sea, by
Ted Cordova-Claure, 8 pp.
SPANISH, per, Marche, Montevideo, 18 April 68,
pp. 21-22.
JPRS 45,280

Scientific
Mechanical, Industrial, Civil & Marine
Engineering (Contd)

Modern French Electric Locomotives. .
SWEDISH, per, Jarnvags Teknik, No 2, 1967,
pp 49-57.
DIA LN 44-68

The Plastic Bag - The Second Most Popular Milk
Container in Denmark.
SWEDISH, per, Plastvarlden, No 10, 1967, p 73.
ACSI J-4243
ID 2204002568

Will Bagged Milk Have the Last Word in Finland?,
by Tor-Helger Gustafsson.
SWEDISH, per, Plastvarlden, No 10, 1967, p 74.
ACSI J-4243
ID 2204002568

Methods & Equipment

Photoelectric Method of Measuring the Turbulence
of High-Temperature Flows, by A. M. Trokhan.
RUSSIAN, per, Fizika Goreniya i Vzryva, No 1,
1966, pp 112-116.
*FTD-MT-24-171-68

The Stereocomparator SKV-1, by Y. D. Dervis.
RUSSIAN, per, Geodesiya i Kartografiya, No 1,
1968, pp 37-49.
*ACSI J-4790
*FSTC HT-23-27-68

Modulation Method for Recognition of Standard
Numbers, by A. F. Gorshkov.
RUSSIAN, per, IVUZ, Priborostroyeniye, Vol 10,
No 3, 1967, pp 64-68.
*FTD-HT-23-444-68

Set of Equipment for Processing Graphs and
Cartograms, by M. I. Frenkel.
RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya
Upravleniya, No 1, 1966, pp 24-25.
ACSI J-3862
ID 2204057167

Investigation of Sound-Field Structures in Closed
Cabins and Compartments by Means of Correlation
Methods, by L. V. Dmitriyeva.
RUSSIAN, per, Soveshchaniye po bor'be s shumoi i
vibratsiyami metodami stroitel'noy akustiki.
Chelyabinsk, Bor'ba s shumoi vibratsiyami;
doklady soveshchaniya, Moscow, 1966, pp 90-95.
*FTD-HT-23-428-65

Scientific
Methods & Equipment (Contd)

Shadow Methods, by L. A. Vasil'ev.
RUSSIAN, bk, Tenevye Metody, 1968.
PLENUM PRESS

Methods for Increasing the Reliability of the
Combination Section of a Digital Automation
Constructed with Threshold Elements, by
I. B. Karosas.
RUSSIAN, per, Trudy, AN LitSSR. Seriya E. Fiziko-
matematicheskiye, khimicheskiye, geologicheskiye
i tekhnicheskiye nauki, No 4, 1966, pp 139-150.
*FTD-MT-24-172-68

Improving the Wear Resistance of Machine Parts
by Diffusion Sulfidizing and Use of Molybdenum
Disulfide, by J. Nainar, F. Hasil.
CZECH, per, Strojirenstvi, Vol 17, No 6, 1967,
pp 426-436.
*FTD-HT-23-242-68

Scientific-Technical Development in Rail-
road Transportation in 1968, by Josef Trcka,
8 pp.
CZECH, per, Zeleznicni Doprava a Technika,
Vol. 16, Prague, No. 1, No. 2, 1968, pp. 1-2.
JPRS 45,177

Scientific-Technical Development in Czechoslovak
Railroad Transportation in 1968, by Engr.
Josef Tracka, 8 pp.
CZECH, per, Zeleznicni Doprava Technika,
Nos. 1 and 2, Jan and Feb 68, pp. 1-2 and
33-34.
JPRS 45252

The Stressing of Tubes for Strength by Hydraulic
Testing, by W. Denny.
GERMAN, per, Bander Bleche, Vol 8, No 4, 1967,
pp 227-231.
*BISI 6379

Network Planning as a Comprehensive Method of
Planning and Control in the Iron Producing and
Metalworking Industry, by H. L. Schmitt.
GERMAN, per, Bander Bleche, Vol 91, Feb 1968,
pp 72-79.
*BISI 6372

Operational Experiences with a Plant for the
Biological Treatment of Coke-Oven Plant Waste
Waters Containing Phenols, by R. Grob and
A. Denne.
GERMAN, per, Stahl Eisen, Vol 88, 21 Mar 1968,
pp 280-285.
*BISI 6388

Scientific
Methods & Equipment (Contd)

Coating (Film) Processes on Zink Anodes in
Caustic Soda Solution, by R. Landsberg.
GERMAN, per, Zeitschrift fuer Elektrochemie,
No 9, 1957, pp 1162-1168.
*ACSI J-4889
*FSTC-HT-23-161-68

New Methods for the Control of Steel Quality -
Electron Probe and Radioactive Tracers for the
Examination of Inclusions, by L. Cente.
ITALIAN, per, Met Ital, Vol 59, Apr 1967,
pp 261-268.
*BISI 6384

Missile Technology

Ballistics of Long-Range Guided Rockets, by
R. F. Appazov, S. S. Lavrov, 218 pp.
RUSSIAN, bk, Ballistika Upravlyayemykh Rakat
Dal'nego Deystviya, 1966, pp 1-307.
FI00081768-V
FTD-MT-24-177-67

Navigation, Communications, Detection &
Countermeasures

New Radio-Relay Equipment for Data-Transmission
Channels, by I. M. Yaroshovskiy.
RUSSIAN, per, Avtomatika Telemekhanika i Svyaz,
No 3, 1967, p 43.
*ACSI J-4794
*FSTC HT-23-39-68

Laser and Prospects for Their Application in
Optical Range Finders, by V. M. Nasarov.
RUSSIAN, per, Geodesiya i Kartografiya, No 8,
1967, pp 10-21.
*FTD-MT-24-151-68

The Effect of Dry Friction on the Motion of a
Gyroscope with Forced Rotation of the Cardan
Suspension, by V. A. Yablonskaya.
RUSSIAN, per, IYUZ, Priborostroyeniye, Vol 10,
No 9, 1967, pp 80-83.
*FTD-HT-23-448-68

Scientific
Navigation, Communications, Detection &
Countermeasures (Contd)

Space Television, by P. F. Bratslavets.
RUSSIAN, bk, Kosmicheskoye Televideniye, 1967,
pp 7-21; 62-78; 95-131.
*FTD-MT-24-158-68

Periscope-Type Antennas and Wireless Transmission
Lines, by A. M. Pokras, 167 pp.
RUSSIAN, bk, Periskopicheskiye Anteny i Bes-
provodnye Linii Peredachi, 1963, pp 1-198.
FI00093568-V
FTD-MT-64-428

Conversion of Graphs into Electrical Signals,
by A. I. Petrenko, 187 pp.
RUSSIAN, bk, Preobrazovaniye Grafikov v Elek-
tricheskiye Signaly, 1964, pp 1-219.
FI00094468-V
FTD-MT-65-391

The Path of Radio Development in the USSR, by
N. D. Paurtsev.
RUSSIAN, bk, Radio 70 Let, Nauchno-Tekhnicheskiy
Sbornik, 1965, pp 3-10. FI00093668-V
FTD-MT-65-496

Radio Relay Communication, by S. V. Borodich.
RUSSIAN, bk, Radio 70 Let, Nauchno-Tekhnicheskiy
Sbornik, 1965, pp 24-48. FI00093668-V
FTD-MT-65-496

Distant Radio Communications on Sky Waves, by
N. I. Chistyakov.
RUSSIAN, bk, Radio 70 Let, Nauchno-Tekhnicheskiy
Sbornik, 1965, pp 49-69. FI00093668-V
FTD-MT-65-496

Development of the Theory and Technology of
Phase Telegraphy, by N. T. Petrovich.
RUSSIAN, bk, Radio 70 Let, Nauchno-Tekhnicheskiy
Sbornik, 1965, pp 70-75. FI00093668-V
FTD-MT-65-496

Technical Facilities of Television Network, by
A. D. Fortushenko and M. I. Krivosheyev.
RUSSIAN, bk, Radio 70 Let, Nauchno-Tekhnicheskiy
Sbornik, 1965, pp 76-107. FI00093668-V
FTD-MT-65-496

Technology of Broadcasting, by I. Ye. Goron.
RUSSIAN, bk, Radio 70 Let, Nauchno-Tekhnicheskiy
Sbornik, 1965, pp 108-123. FI00093668-V
FTD-MT-65-496

Scientific
Navigation, Communications, Detection &
Countermeasures (Contd)

Radar and Radio Navigation, by I. V. Brenev.
RUSSIAN, bk, Radio 70 Let. Nauchno-Tekhnicheskiy
Sbornik, 1965, pp 124-139. P100093668-V
FTD-MT-65-496

Radio Wave Propagation, by M. P. Dolukhanov.
RUSSIAN, bk, Radio 70 Let. Nauchno-Tekhnicheskiy
Sbornik, 1965, pp 169-189. P100093668-V
FTD-MT-65-496

Antenna Technology, by G. Z. Ayzenberg.
RUSSIAN, bk, Radio 70 Let. Nauchno-Tekhnicheskiy
Sbornik, 1965, pp 190-215. P100093668-V
FTD-MT-65-496

Quantum Radio Engineering, by A. M. Prokhorov.
RUSSIAN, bk, Radio 70 Let. Nauchno-Tekhnicheskiy
Sbornik, 1965, pp 216-227. P100093668-V
FTD-MT-65-496

Radio Transmitting Technology, by Z. I. Model'.
RUSSIAN, bk, Radio 70 Let. Nauchno-Tekhnicheskiy
Sbornik, 1965, pp 228-247. P100093668-V
FTD-MT-65-496

Radio Reception Technology, by V. I. Siforov.
RUSSIAN, bk, Radio 70 Let. Nauchno-Tekhnicheskiy
Sbornik, 1965, pp 248-261. P100093668-V
FTD-MT-65-496

Semiconductor Electronics, by Ya. A. Fedotov.
RUSSIAN, bk, Radio 70 Let. Nauchno-Tekhnicheskiy
Sbornik, 1965, pp 262-278. P100093668-V
FTD-MT-65-496

Electronic Devices, by N. D. Devyatkov.
RUSSIAN, bk, Radio 70 Let. Nauchno-Tekhnicheskiy
Sbornik, 1965, pp 279-292. P100093668-V
FTD-MT-65-496

High-Frequency Communication on Cable Lines,
by B. F. Anosovich.
RUSSIAN, bk, Radio 70 Let. Nauchno-Tekhnicheskiy
Sbornik, 1965, pp 293-314. P100093668-V
FTD-MT-65-496

Telemetry and Remote Control in the National
Economy, by V. A. Il'in.
RUSSIAN, bk, Radio 70 Let. Nauchno-Tekhnicheskiy
Sbornik, 1965, pp 315-332. P100093668-V
FTD-MT-65-496

Scientific
Navigation, Communications, Detection &
Countermeasures (Contd)

Contribution to the Theory of Approximate Mini-
max Detection of Signals Against a Gaussian
Background, by Yu. V. Linnik, Yu. V. Prokhorov.
RUSSIAN, per, Teoriya Veroyatnostey I Yeye
Primeneniya, Vol 12, No 3, 1967, pp 401-417.
*FTD-MT-23-246-68C

The Five-Year Plan is to be Fulfilled Ahead
of Schedule, 7 pp.
RUSSIAN, per, Vestnik Svyazi, Vol. XXVIII,
No. 1, Jan 68, Moscow, pp. 1-3,
JPRS 45,175

The New Radio-Relay Equipment R600-2MV,
11 pp.
RUSSIAN, per, Vestnik Svyazi, Vol. XXVIII,
No. 1, Jan 68, Moscow, pp. 3-5.
JPRS 45,175

Equipment for Magnetic Facsimile Tandem
Operation, 11 pp.
RUSSIAN, per, Vestnik Svyazi, Vol. XXVIII,
No. 1, Jan 68, Moscow, pp. 6-9.
JPRS 45,175

Equipment for the Derivation of 12-Channel
Groups of Telephone Channels, 10 pp.
RUSSIAN, per, Vestnik Svyazi, Vol. XXVIII,
No. 1, Jan 68, Moscow, pp. 9-11.
JPRS 45,175

A Group Receiver for the Three-Program
Wire Broadcasting, 7 pp.
RUSSIAN, per, Vestnik Svyazi, Vol. XXVIII,
No. 1, Jan 68, Moscow, pp. 12-14.
JPRS 45,175

Organization and Operation of Communication
Facilities, A New Technique for the Preventive-
Maintenance Repairs of the Telegraph
Apparatuses STA-2M, 6 pp.
RUSSIAN, per, Vestnik Svyazi, Vol. XXVIII,
No. 1, Jan 68, Moscow, pp. 20-22,
JPRS 45,175

Replacement of Reverse Preselection by
Direct Selection in the Automatic Subscribers'
Telegraph System ATA-57, 6 pp.
RUSSIAN, per, Vestnik Svyazi, Vol. XXVIII,
No. 1, Jan 68, Moscow, pp. 24-25.
JPRS 45,175

Scientific
Navigation, Communications, Detection &
Countermeasures (Contd)

Fulfillment of the Plan on the Scientific Organization of Labor at Gomel' Television Center, 8 pp.
RUSSIAN, per, Vestnik Svyazi, Vol. XXVIII, No. 1, Jan 68, Moscow, pp. 27-29.
JPRS 45,175

For A High Quality of the Work and Efficiency of the Service to the Population, 7 pp.
RUSSIAN, per, Vestnik Svyazi, Vol. XXVIII, No. 1, Jan 68, Moscow, pp. 30-32.
JPRS 45,175

Tacan Radio Meteorology System, by Chang Kuan-JW.
CHINESE, per, Dianzi Jishu, No 5, 1964, pp 27-30.
Dept of Navy NIC tr 2595

Resonance Probe, by Dimitri Lepechinsky.
FRENCH, rpt, 31 pp, 1966.
*NASA TT F-11,666

International Telecommunication Organization, 166 pp.
FRENCH, bk, Transtel, 3rd Edition, 1966-1967, pp 1-166.
DIA LM 421-68

Transportation and Communications, 10 pp.
ITALIAN, rpt, S.I.D. 171/S, 23 June 1967, pp VI-1; 2; 4; 5; 6; 7; V; 8-45; 46; 47.
DIA LM 696-68

Nuclear Sciences & Technology

Air Flow Behind a Strong Shock Wave, Taking Nonequilibrium Ionization and Radiation into Consideration, by L. M. Biberman.
RUSSIAN, per, AN SSSR, Izv., Mekh, Zhidkosti i Gaza, No 6, 1967, pp 46-57.
*Dept of Navy/APL/JHU J-1160

Photoconductivity and Quantum Yield in Germanium Under the Action of Roentgen Radiation, by M.G. Kamoldinov, 8 pp.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy, Seriya Fizika, Moscow, No. 3, 1967, pp. 22-26.
JPRS 45,278

Scientific
Nuclear Science & Technology (Contd)

All Union Symposium on Radiation Chemistry of Polymers, by M. Ya. Kaplunov.
RUSSIAN, per, Kauchuk i Rezina, No 4, 1965, pp 49-51.
*ACSI J-4619
*FSTC HT-23-95-68

Investigation of Heat Transfer to Organic Liquids, by L. S. Sternan and V. V. Petukhov, 13 pp.
RUSSIAN, rpt, Moscow, Institut Atomnoy Energii. Issledovaniya po Primeneniyu Organicheskikh Teplosnositel'nykh Zamedlitateley v Energeticheskikh Reaktorakh, 1964, pp 95-106. FI00089568-V
FTD-MT-67-45

Heat-Carrier Production Process for Nuclear Reactors from Cumene Production Waste, by V.P. Davydov, et al, 6 pp.
RUSSIAN, per, Nefteraizrabotka i Neftekhimiya, No. 3, Moscow, 1968, pp. 27-28.
JPRS 45,473

Experimental Data on the Shielding Attenuation of Radiation of Extended Sources, by D. P. Osanov.
RUSSIAN, rpt, Voprosy Dosimetrii i Zashchity ot Izlucheniya, No 2, 1963, pp 51-65.
*FTD-MT-24-79-68

Some Problems Concerning Radiation in an Inorganic Medium with Evenly Distributed Isotope Sources, by V. V. Pavlov.
RUSSIAN, per, Voprosy Dosimetrii i Zashchity ot Izlucheniya, No 3, 1964, pp 82-88.
*FTD-MT-24-82-68

Radiation Measuring Instruments, by A. Kurikov, 7 pp.
RUSSIAN, journal, Voennoye Znaniya, No. 2, Moscow, Feb 68, pp. 38-39.
JPRS 45,130

Construction of Bulgarian Atomic Power Station and Nuclear Energy Problems, by Simeon Ruskov, 29 pp.
BULGARIAN, per, Spisanie na Bulgarskata Akademiya na Naukite, Sofia, July-Oct 67, pp. 15-35.
JPRS 45,161

Scientific
Nuclear Science & Technology (Contd)

Detection of Hard Beta Radiation in Water Using the Cerenkov Effect, by Bernard Turch.
FRENCH, rpt.
*NASA TT F-11,793

G. B. Is the Nuclear Trend Justified?
FRENCH, per, Atomic Energy Newsletter, No 957,
8 Dec 1967.
Dept of Navy NIC tr 2598

Nuclear Power Plants in France.
FRENCH, per, Atomic Energy Newsletter, No 958,
11 Dec 1967.
Dept of Navy NIC tr 2598

The Future of Euratom.
FRENCH, per, Atomic Energy Newsletter, No 959,
12 Dec 1967.
Dept of Navy NIC tr 2598

The Containment Vessel for the Nuclear Ship Otto Hahn.
GERMAN, per, Hansa, No 6, Mar 1968.
Dept of Commerce
Maritime Admin

Kinetics of Radiation Polymerization in Channel Complexes, by L. Kiss.
HUNGARIAN, per, Magyar Kemiai Folyoirat, Vol 74,
No 3, 1968.
*ACSI J-4977
*FSTC-HT-23-182-68

Introduction to Radiation Shielding, by Tomonori Hyodo.
JAPANESE, bk, Introduction to Radiation Shielding.
Dept of Navy NIC tr 2594

Armor Against the Atom.
SERBO-CROATIAN, np, Narodna Armija, 22 Dec 67,
p 1.
*ACSI J-4837
*FSTC HT-23-111-68

Yugoslav Activities and Conferences in the Nuclear Research Field, 11 pp.
SERBO-CROATIAN, per, Nuklearna Energija.
Belgrade, 1967, pp. 24-27.
JPRS 45,241

Scientific
Physics

Aerodynamic Experiment in Machine Building (Chapter 2), by I. L. Povkh, 44 pp.
RUSSIAN, bk, Aerodinamicheskiy Eksperiment v Mashinostroyenii, 1965, pp 40-480. F100093468-V
FTD-MT-67-07

Current-Convective Instability of an Electron Beam in Plasma, by M. D. Rayzor & A. A. Rukhadze.
RUSSIAN, per, AN SSSR, Fizicheskiy Institut Imeni P. I. Lebedeva, Laboratoriya Uskoriteley, No 99,
1967. P911043768
AEC UCRL-Tr-10149

Heat Exchange of Bodies of Different Form with Turbulent Flow of Air, by V. K. Shchitnikov, 35 pp.
RUSSIAN, rpt, AN BSSR, Institut Teplo- i Massoobmena. Teplo- i Massoobmena Tel s Okruzhayushchey Gazovoy Sredoy, Nauka i Tekhnika, Minsk, 1965, pp 86-111.
F100080568-V
FTD-MT-67-74

Interference Measurements Mass Transfer in a Turbulent Boundary Layer of a Permeable Surface, by L. A. Fayngol'd, 9 pp.
RUSSIAN, rpt, AN BSSR, Institut Teplo- i Massoobmena. "Teplo- i Massoobmena Tel s Okruzhayushchey Gazovoy Sredoy" Nauka i Tekhnika, Minsk, 1965, pp 123-129. F100078568-V
FTD-MT-24-105-67

Investigation of Local Mass Transfer with Flow of a Turbulent Stream of Air Around a Rectangular Cavity, by V. P. Popov.
RUSSIAN, rpt, AN BSSR, Institut Teplo- i Massoobmena. Issledovaniye Nestatsionarnogo Teplo- i Massoobmena, Minsk, Nauka i Tekhnika, 1966, pp 161-177.
*FTD-MT-24-153-68

On the Question of the Construction of a Stationary Magnetohydrodynamic Model of a Cyclone, by A. G. Khantadse, 5 pp.
RUSSIAN, per, AN GruzSSR, Soobshcheniya, Vol 36, No 2, 1964, pp 273-278. F100078868-V
FTD-HT-67-75

A High-Sensitivity Neutron and γ -Radiation Radiometer of the Vrn-2 Type, by L. S. Druskina & V. I. Krasnenkov.
RUSSIAN, per, AN LatSSR, Institut Fiziki. Radiatsionnaya Fizika, Vol 2, 1964, pp 79-86.
F100104268-V
FTD-HT-23-856-67

Scientific
Physics (Contd)

Asymptotics of the Wake of a Body Moving in Rarefied Plasma, by Yu. M. Panchenko, 17 pp.
RUSSIAN, rpt, AN SSSR, Komissiya Po Issledovaniyu i Ispol'sovaniyu Kosmicheskogo Prostranstva. Issledovaniya Kosmicheskogo Prostranstva, 1965, pp 254-264. P100093768-V
FTD-MT-67-44

Experimental Investigation of Effect of Vacuum on Process of Contact Failure of Steels, by S. V. Pinegin and V. M. Gudchenko, 13 pp.
RUSSIAN, per, AN SSSR, Mashinovedeniye, No 1, 1965, pp 119-126. P100088468-V
FTD-MT-67-57

Certain Peculiarities of the Raman Spectra of Absorbed Molecules, by Ye. V. Pershina.
RUSSIAN, rpt, AN SSSR, Otdeleniye Fiziko-Matematicheskikh Nauk, Optika i Spektroskopiya t 3. Molekulyarnaya Spektroskopiya, 1967, pp 328-337.
*FTD-HT-23-405-68

IR Absorption Spectra of Diaryl Substituted 1,4-Divinylbenzene, by L. Ya. Males, B. A. Zadoroshnyy.
RUSSIAN, per, AN SSSR, Otdeleniye Fiziko-Matematicheskikh Nauk, Optika i Spektroskopiya: Molekulyarnaya Spektroskopiya, Vol 3, 1968, pp 258-262.
*FTD-HT-23-260-68

The Case of Exact Resonance During Charge Drift in a Slowly Varying Spatially Modulated Magnetic Field, by R. I. Kovtun.
RUSSIAN, rpt, AN UkrSSR, Magnitnyye Lovushki. Kiev, Naukova Dumka, 1965, pp 71-78.
*FTD-MT-67-826

Description of Pictures by Integral Contour Functions, by V. L. Vasylyev.
RUSSIAN, per, Avtomatika, No 2, 1967, pp 26-31.
*FTD-HT-23-396-68

Experimental Investigation of the Role of Instability and Nonhomogeneity in the Component Conversion Zone, in the Process of Bringing in Condensed Layers.
RUSSIAN, per, Doklady Akad Nauk SSSR, Vol 174, No 5, 1967, p 1129.
*Dept of Navy NIC

Scientific
Physics (Contd)

Investigation of Current Distribution in the Coaxial Plasma Gun, by I. M. Zolototrubov, V. A. Kisalev.
RUSSIAN, per, AN UkrSSR, Fiziko-Tekhnicheskii Institut, Doklady, No 082/P-034, 1964, pp 1-10.
*FTD-MT-584-67

About the Motion of Plasmoids in Field-Free Space, by Yu. S. Azovskiy, I. T. Guzhovskiy, 14 pp.
RUSSIAN, per, AN UkrSSR, Fiziko-Tekhnicheskii Institut, Doklady, No 49, 1964, pp 1-13.
P100081068-V
FTD-MT-24-108-67

Magnetic Moment of Plasma Pinch Traveling in a Uniform Longitudinal Magnetic Field, by N. A. Khishnyak, 28 pp.
RUSSIAN, per, AN UkrSSR, Fiziko-Tekhnicheskii Institut, Doklady, No 73, 1964, pp 1-18.
P100082068-V
FTD-MT-24-106-67

Operation of Coaxial Plasma Source in a Longitudinal Magnetic Field, by I. M. Zolototrubov, V. A. Kisalev, 8 pp.
RUSSIAN, per, AN UkrSSR, Fiziko-Tekhnicheskii Institut, Doklady, No 80, 1964, pp 1-8.
P100081368-V
FTD-MT-24-103-67

Investigation of the Energy Distribution of Coaxial-Source Hydrogen Plasma, by I. M. Zolototrubov, A. B. Rastrepin, 11 pp.
RUSSIAN, per, AN UkrSSR, Fiziko-Tekhnicheskii Institut, Doklady, No 81, 1964, pp 1-10.
P100080868-V
FTD-MT-24-107-67

Acceleration of Electrons of Plasma, by A. M. Stefanovskiy, 26 pp.
RUSSIAN, per, Moscow, Institut Atomnoy Energii. Doklady, No 769, 1964, pp 1-35. P100077268-V
FTD-MT-67-81

Convergence of Approximate Natural Frequencies of Oscillations of a Free Beam with Variable Parameters to the Exact Frequencies of the Problem, by K. Ya. Kukhta, 7 pp.
UKRAINIAN, per, AN UkrSSR, Dopovidy, No 2, 1966, pp 151-154. P100078768-V
FTD-MT-66-783

Scientific
Physics (Contd)

Thermal Stresses in Gas Turbine Nozzle Blades Under Non-Steady State Thermal Regimes, by R. I. Kuriat.
RUSSIAN, per, Energomashinostroyeniye, No 10, 1966, pp 30-32.
*FTD-MT-24-157-68

Determination of Cavitation Resistance of Materials with the Help of Magnetostriction Vibrators, by M. M. Pisarevskiy & A. F. Yerashov.
RUSSIAN, per, Energomashinostroyeniye, Vol 9, 1957, pp 38-39.
Dept of Navy NIC tr 2582

Effect of an Increase in External Pressure on the Detonation Capacity of Some Explosives, by A. F. Belyaev & M. K. Sukoyan.
RUSSIAN, per, Fiz. Goreniya i Vzryva, Vol 3, No 1, 1967, pp 19-22.
Dept of Navy/APL/JHU T-2130

Ignition Delays of Hydrocarbon Fuels at High Temperatures, by V. L. Zimont and Yu. M. Trushin, 11 pp.
RUSSIAN, per, Fiz. Goreniya i Vzryva, Vol 3, No 1, 1967, pp 86-93.
Dept of Navy/APL/JHU T-2126

Kinetic Properties of Air and Other Gases at High Temperatures, by Yu. N. Belyayev.
RUSSIAN, per, Fizika Goreniya i Vzryva, Vol 3, June 1967, pp 171-187.
*NASA TT F-11,837

Experimental Determination of Graphite Ablation Rate Under Substantial Nonisothermal Conditions, by A. I. Leont'yev.
RUSSIAN, per, Fizika Goreniya i Vzryva, Vol 3, No 2, 1967, pp 248-254.
*Dept of Navy/APL/JHU J-1165

On the Nature of the Photoelectric Rectification Effect in Cadmium Selenide, by V. N. Komashenko.
RUSSIAN, per, Fizika i Tekhnika Poluprovodnikov, Vol 1, No 4, 1967, pp 495-500.
*ACSI J-4779
*FSTC HT-23-38-68

High-Speed Survey of Plasma in Soft X-Ray and Ultraviolet Region, by M. I. Pergament and A. I. Yaroslavskiy, 13 pp.
RUSSIAN, rpt, Institut Atomnoy Energii Im. I. V. Kurchatova, Moskva, AN SSSR, 1966, pp 1-12. P100089168-V
FTD-MT-24-86-67

Scientific
Physics (Contd)

Pulsed Thermonuclear System with a Dense Plasma, by S. G. Alikhanov et al. 14 pp.
RUSSIAN, rpt, Institute of Nuclear Physics of Siberian Dept. of Acad. of Sciences USSR.
AEC-MATT-Tr-50 P911081168-V

System for High-Speed Registration of Spectral-Line Contours, by E. P. Kruglyakov and Yu. Ye. Nesterikhin, 9 pp.
RUSSIAN, rpt, Institut Yadernoy Fiziki Sibirskogo Otdeleniya AN SSSR, Novosibirsk, 1966, pp 1-12.
P100093968-V
FTD-MT-24-84-67

Optical Plasma Interferometry, by G. G. Dolgov-Savel'yev, E. P. Kruglyakov, 10 pp.
RUSSIAN, per, Institut Yadernoy Fiziki Sibirskogo Otdeleniya AN SSSR, Novosibirsk, 1966, pp 1-13. P100088168-V
FTD-MT-24-83-67

Graphs for Determining the Time-Dependent Temperature Field in Rods or Plates of Finite Lengths with Internal Heat Sources, by A. Kessler.
RUSSIAN, per, Inzherno-Fizicheskiy Zhurnal, Vol 7, No 3, 1964, pp 134-136.
*NASA TT F-11,826

A System of Plane Turbulent Jets, by I. S. Makarov & B. G. Khudenko.
RUSSIAN, per, Inzhenerno-Fizicheskiy Zhurnal, Vol 9, No 2, 1965, pp 180-186. P100105868-V
FTD-HT-23-854-67

Stationary Temperatures in Porous Cooling, by M. D. Mikhaylov.
RUSSIAN, per, Inzhenerno-Fizicheskiy Zhurnal, Vol 11, No 2, 1966, pp 264-265.
*FTD-HT-23-254-68

Allowance for the Transition Region in Computing Plane and Axisymmetric Boundary Layers, by L. F. Koslov.
RUSSIAN, per, Inzh.-Fiz. Zhurnal, Vol 13, No 1, 1967, pp 9-15.
Dept of Navy/APL/JHU T-2133

Generalization of Data on Convective Heat Transfer with Evaporation into a Turbulent Boundary Layer, by P. Sh. Vainberg.
RUSSIAN, per, Inzh.-Fiz. Zhurnal, Vol 13, No 4, 1967, pp 510-513.
*Dept of Navy/APL/JHU J-1158

Scientific
Physics (Contd)

Engineering Formulas for Calculating Friction on a Permeable Surface in a Turbulent Gas Stream, by V. D. Sovershenyy.
RUSSIAN, per, Inzh.-Fiz. Zhurnal, Vol 12, No 4, 1967, pp 538-539.
Dept of Navy/APL/JHU T-2131

Calculation of Two-Phase Flow in an Axisymmetric Supersonic Nozzle, by I. M. Kapura.
RUSSIAN, per, Inzh.-Fiz. Zhurnal, Vol 13, No 5, 1967, pp 631-638.
*Dept of Navy/APL/JHU J-1166

Stability of a Three-Layer Orthotropic Plate in a Supersonic Gas Flow, by Zh. Ye. Bagdasaryan, 12 pp.
RUSSIAN, per, AN ARSSR, Izvestiya. Seriya Fiziko-Matematicheskikh Nauk, Vol 14, No 5, 1961, pp 21-30.
PI00079568-V
FTD-HT-66-764

On Transverse Impact Against a Flexible Plate by a Blunted Axisymmetric Body of Arbitrary Form, by U. Bektursunov.
RUSSIAN, per, AN KazSSR, Izvestiya. Seriya fiziko-matematicheskaye, No 1, 1967, pp 33-37.
*FTD-HT-23-443-68

Observations of Thermal Radiation of the Moon, by N. P. Yessulov, N. S. Nikulin, 11 pp.
RUSSIAN, per, AN SSSR, Krynzhaya Astrofizicheskaya Observatoriya, Izvestiya, Vol 30, 1963, pp 273-283.
PI00094168-V
FTD-MT-67-25

On the Application of the "Law of Plane Sections" to the Determination of the Aerodynamic Forces Acting on Oscillating Shells, by V. V. Bolotin, 7 pp.
RUSSIAN, per, AN SSSR, Izvestiya. Mekhanika Mashinostroyeniya, No 1, 1961, pp 159-162.
PI00081268-V
FTD-MT-66-763

Physical Nature of Flow Near the Separation Region in Three-Dimensional Shock-Boundary Layer Interaction, by V. S. Avduvskii & K. I. Medvedev.
RUSSIAN, per, AN SSSR, Izv., Mekhanika Zhidkosti i Gaza, No 1, 1967, pp 25-33.
Dept of Navy/APL/JHU T-2129

Scientific
Physics (Contd)

Investigation of a Supersonic Gas Flow and Heat Transfer in the Region of an Incident Shock Wave on a Cylinder, by M. P. Teterin.
RUSSIAN, per, Izvestiya Ak Nauk SSSR, Mekhanika Zhidkosti i Gaza, No 3, 1967, pp 92-97.
*NASA TT F-11,795

Selection of a Wing Shape for Hypersonic Velocities, by G. I. Maykapar.
RUSSIAN, per, Izvestiya Ak Nauk SSSR, Mekhanika Zhidkosti i Gaza, No 4, 1967, pp 40-49.
*NASA TT F-11,802

Slender Two-Dimensional Bodies of Minimum Wave Drag in a Nonequilibrium Supersonic Flow, by A. N. Krayko.
RUSSIAN, per, Izvestiya Ak Nauk SSSR, Mekhanika Zhidkosti i Gaza, No 4, 1967, pp 65-63.
*NASA TT F-11,803

Laminar Boundary Layer on Elliptic Cylinders of Infinite Length at Arbitrary Angle of Yaw, by V. A. Bashkin.
RUSSIAN, per, AN SSSR, Izvestiya. Mekhanika Zhidkosti i Gaza, No 5, 1967, pp 76-82.
*FTD-MT-24-189-68

Experimental Investigation of a Vortex Flow Near Wings of Small Fineness Ratio and Circular Cones at M 2, by V. I. Alferov.
RUSSIAN, per, AN SSSR, Izvestiya. Mekhanika Zhidkosti i Gaza, No 5, 1967, pp 113-121.
*FTD-MT-24-189-68

Calculating Heat Transfer on a Blunt-Nosed Body in Hypersonic Flow, by Yu. N. Yermak & V. Ya. Neyland.
RUSSIAN, per, AN SSSR, Izv., Mekh. Zhidkosti i Gaza, No 6, 1967, pp 153-156.
*Dept of Navy/APL/JHU J-1161

Measurement of the Drag of a Star-Shaped Body in Supersonic Flow at M = 6 and 8, by A. I. Gonor.
RUSSIAN, per, Izvestiya Ak Nauk SSSR, Mekhanika Zhidkosti i Gaza, Jan-Feb 1968, pp 94-97.
*NASA TT F-11,834

Variational Problem of the Shape of a Minimum-Drag Body with Given Volume and Area of the Side Surface, by G. I. Bogomolov.
RUSSIAN, per, Izvestiya, Ak Nauk SSSR, Mekhanika Zhidkosti i Gaza, Jan-Feb 1968, pp 106-110.
*NASA TT F-11,833

Scientific
Physics (Contd)

Charge on Atoms in Ferrocene and Its Analogs,
by S. S. Batsanov.
RUSSIAN, per, Izv Akad Nauk SSSR, Sibirsk.
Otdel, No 8, 1962, pp 110-113.
*FTD-HT-23-248-68

Investigation of the Energy Spectra of Atoms
Sputtered from a Tungsten Single Crystal by
Mercury Ions, by M. B. Ben'yaminovich and
R. A. Ashmanskii, 9 pp.
RUSSIAN, per, AN USSR. Izvestiya. Seriya
Fiziko-Matematicheskikh Nauk, No 2, 1966,
pp 58-62. P100082168-V
FTD-HT-67-193

Catalogue of Parameters of Polarized Light
Reflected by Terrestrial Rocks, by Ye. K.
Kokhan, 21 pp.
RUSSIAN, per, PULKOVO. Astronomicheskaya
Observatoriya. Izvestiya, Leningrad, Vol 23,
No 5, 1964, pp 93-106. P100079068-V
FTD-HT-67-172

Selective Excitation of Argon Ions by Metastable
Helium Atoms, by V. P. Chebotayev.
RUSSIAN, per, Izvestiya Sibirsk OTD, Akad Nauk
SSSR, Ser Tekh, Vol 6, 1964, pp 121-124.
*NASA TT F-11,830

Character of Structural Transformation in De-
formed Alloy NI + 10% (AT.) MO, by
A. N. Dubrovina.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh
Zavedeniy, Chernaya Metallurgiya, No 5, 1966,
pp 140-143. P100078368-V
FTD-MT-24-176-67

Effective Cross Sections of the Formation of
Imperfections in Gallium Arsenide Under the
Action of Gamma Rays, by M. A. Krivov,
S. V. Malyanov.
RUSSIAN, per, IVUZ. Fizika, No 4, 1964, pp 147-
151.
*FTD-HT-23-250-68

Hall Effect in Samples of Round Shape, by
V. L. Kon'kov.
RUSSIAN, per, IVUZ. Fizika, No 2, 1966, pp 159-
160.
*FTD-HT-23-249-68

Scientific
Physics (Contd)

Effect of X-Ray and Electron Emission on Gallium
Arsenide P-N Junctions, by M. A. Krivov,
S. V. Malyanov.
RUSSIAN, per, IVUZ. Fizika, No 6, 1966, pp 135-
136.
*FTD-HT-23-257-68

Investigation of the Interaction Between a Con-
ducting Layer and a Luminescent Layer During the
Formation of an Electroluminescent Capacitor,
by A. A. Tammik.
RUSSIAN, per, IVUZ. Fizika, No 2, 1967, pp 157-
159.
*FTD-HT-23-256-68

Luminescence and Migration of Electron Excitation
in Stilbene Crystals. II. Luminescence of
Stilbene Crystals Doped with Anthracene, by
V. R. Priymachek.
RUSSIAN, per, IVUZ. Fizika, No 6, 1967, pp 44-47.
*FTD-HT-23-447-68

Peculiarities of Polarization of HgI₂ Single
Crystals with Allowance for the Excitation
Effect, by V. F. Zolotarev.
RUSSIAN, per, IVUZ. Fizika, No 6, 1967, pp 130-134.
*FTD-HT-23-447-68

Electrical Exploding of Foil, by Yu. P. Kostochko,
V. D. Meralyakov.
RUSSIAN, per, IVUZ. Fizika, No 6, 1967, pp 145-
147.
*FTD-HT-23-255-68

Experimental Investigation of Atmospheric Ab-
sorption of Gas Laser Radiation (Wavelength 1.15
Microns), by B. A. Antipov, V. Ye. Zuyev.
RUSSIAN, per, IVUZ. Fizika, No 6, 1967, pp 159-
160.
*FTD-HT-23-255-68

Hysteresis Loops of Iron-Gadolinium Films, Plotted
by the Static Method, by V. A. Buravikhin.
RUSSIAN, per, IVUZ. Fizika, No 7, 1967, pp 137-139.
*FTD-HT-23-419-68

The Fading of Collimated Light Beams in Nega-
tive Media, by M. V. Kabanov.
RUSSIAN, per, IVUZ. Fizika, No 8, 1967, pp 26-
30.
*FTD-HT-23-251-68

Scientific
Physics (Contd)

Weakening of Radiation of Optical Quantum Generators in Artificial Water Fogs, by V. I. Bulatyy, M. V. Kabanov.
RUSSIAN, per, Ivuz, Fizika, No 8, 1967, pp 142-144.

*FTD-MT-23-251-68

Absorption and Radiation of Electromagnetic Waves by a Magnetoactive Plasma, by V. L. Ginsburg & V. V. Zheleznyakov.

RUSSIAN, per, VUZ, Izv., Radiofizika, Vol 1, No 2, 1958, pp 59-65.
Dept of Navy/APL/JHU T-2136

Resolving Power of Highly-Directional Antennas with a Strongly Fluctuating Field Distribution, by Yu. A. Kravtsov and Z. I. Freidulin, 17 pp.
RUSSIAN, per, VUZ, Izv Radiofizika, Vol 10, No 8, 1967, pp 1131-1140.
Dept of Navy/APL/JHU T-2123

On the Calculation of Klystron Second Cavity Gap Electron Conductivity When the Bunching Parameters are Large, by G. P. Petin, A. Ya. El'Bert, 4 pp.

RUSSIAN, per, Izvestiya Vysshikh Zavedeniy - Radiotekhnika, No 3, 1966, pp 367-369.
ACSI J-4348
ID 2204005468

Kinetics of Electrode Processes, by A. N. Frumkin, V. S. Bagotskiy. 545 pp.
RUSSIAN, bk, Kinetika Elektrolynich Protssessov. 1952, pp 1-319. P10097568-V
FTD-MT-67-153

Investigation of Electrochemical Behavior of Titanium, by N. D. Tomashov, V. N. Modestova.
RUSSIAN, per, Korrosiya Metallov i Splavov. No 2, 1965, pp 80-102. P10007768-V
FTD-MT-24-99-67

From Heat to Handling, by D. Nadezhdin.
RUSSIAN, np, Krasnaya Zvezda, 19 Oct 1967, p 2.
*FTD-MT-23-397-68

Free Molecule Flow Over Bodies with Complex Form, by Ye. V. Alekseyeva.
RUSSIAN, per, Leningrad, Universitet, Nauchno-issledovatel'skiy institut matematiki i mekhaniki. Aerodinamika rasreshennykh gasov, No 3, 1967, pp 58-66.
*FTD-MT-24-164-68

Scientific
Physics (Contd)

The Application of Nuclear Magnetic Resonance (NMR) for Differential Measurements in the Magnetic Field of the Earth, by A. V. Mal'nikov, 21 pp.

RUSSIAN, per, Leningrad, Universitet, Yadernyy Magnitnyy Resonans, No 1, 1965, pp 49-63.
P100081868-V
FTD-MT-24-100-67

Behavior of the Vector of Nuclear Magnetization When the Polarizing Magnetic Field is Cut Off, by E. Kh. Madiyevskaya, A. V. Mal'nikov.
RUSSIAN, per, Leningrad, Universitet, Yadernyy Magnitnyy Resonans, No 1, 1965, pp 64-75.
*FTD-MT-67-711

Experimental Investigation of a Triple-Jet Gas Ejector, by Yu. N. Vasil'yev, Yu. A. Zhuravlev, 14 pp.
RUSSIAN, per, Lopatochnyye Mashiny i Struynyye Apparaty. Sbornik Staty, No 1, 1966, pp 217-234. P100077968-V
FTD-MT-24-164-67

The Experimental Investigation of the Influence of a Longitudinal Magnetic Field on Convection Heat Transfer During Turbulent Flow of a Conducting Fluid in a Pipe, by D. S. Kovner, Ye. Yu. Krasil'nikov, 11 pp.
RUSSIAN, per, Magnitnaya Gidrodinamika, Vol 2, No 4, 1966, pp 101-106. P100079168-V
FTD-MT-24-189-67

Masers, by Anatoliy Nikolayevich Orayevskiy.
RUSSIAN, bk, Masery (Molekulyarnyye Generatory). 1964, 294 pp.
*FTD-MT-24-110-67

Determining Thermal Stability of Lubricating Greases, by A. R. Kosyakin, Ye. A. Uspenskaya.
RUSSIAN, bk, Metody Otsenki Eksploataatsionnykh Svoystv Reaktivnykh Ionliv i Smeschnykh Materialov, 1966, pp 104-109. P100083068-V
FTD-MT-66-99

Boundary Layer in the Vicinity of a Stagnation Point, by T. S. Varshanskaya, Ye. I. Obtsokova.
RUSSIAN, per, Moscow, Universitet, Vychislitel'nyy Tsentr. Sbornik Rabot. "Chislennyye Metody Gasovoy Dinamiki", No 2, 1963, pp 135-145.
*FTD-MT-66-170

Scientific
Physics (Contd)

Unidimensional Nonstationary Real Gas Flow,
by V. A. Yeroshin.
RUSSIAN, per, Moscow, Universitet. Vychislitel'nyy
tsentr. Sbornik rabot, Chislennyye metody v
gasovoy dinamike, No 4, 1965, pp 221-231.
*FTD-HT-23-420-68

Nonselective Optical-Acoustic Receiver with an
Optical Microphone, by N. A. Pankratov, 29 pp.
RUSSIAN, per, Optiko-Mekhanicheskaya Promyshlen-
nost', No 1, 1960, pp 37-48. FI00088568-V
FTD-MT-67-62

Principles of Aerial Photography and Photo-
grammetry, by F. V. Drobyshev, 257 pp.
RUSSIAN, bk, Osnovy Aerofotos'yemki i Foto-
grammetrii, 1963, pp 1-259. FI00093368-V
FTD-MT-65-220

Plasma - The Fourth State of Matter, 3rd Edition,
Revised and Enlarged, by Frank Kamenetskii,
RUSSIAN, bk, Plazma-chetvertoe Sostoyanie
Veshchestva, Izd. 3-e, Atomizdat, 1968.
PLENUM PRESS

The Effect of Initial Buckling on the Stability
of Finned Cylindrical Shells Under Axial Com-
pression, by I. Ya. Amiro.
RUSSIAN, per, Prikladnaya Mekhanika, Vol 2, No
1, 1966, pp 53-58. FI00077668-V
FTD-HT-66-785

Conference on Problems of High-Temperature
Strength, by L. V. Kravchuk.
RUSSIAN, per, Prikladnaya Mekhanika, Vol 2,
No 1, 1966, pp 141-143. FI00077668-V
FTD-HT-66-785

Investigation of a Vortex Wake Behind a Body of
Revolution, by E. K. Buchinskaya & K. A. Pochkina.
RUSSIAN, per, Promyshlennaya Aerodinamika,
No 27, 1966, pp 121-144.
Dept of Navy/APL/JHU TG 230-T546

Scattering of Light in a Turbid Medium, by
K. S. Shifrin, 208 pp.
RUSSIAN, bk, Rassevaniya Sveta v Mutnoy Srede,
1951.
NASA TT F-477

Soviet Atomic Science and Engineering, by
K. I. Shchelkin, 509 pp.
RUSSIAN, bk, Sovetskaya Atomnaya Nauka i
Tekhnika, Atomic Energy Publishing House;
Moscow, 1967, 392 pp.
JPRS 45,331

Scientific
Physics (Contd)

Superconductors in Physics and Technology, by
V. P. Kartsev, 75 pp.
RUSSIAN, per, Sverkhprovodniki v Fizike i
Tekhnike, No 9, 1965, pp 1-48. FI00080068-V
FTD-MT-24-109-67

Light - Detector and Weapon, by V. Krasnov.
RUSSIAN, per, Svet - Lokator, Svet - Oruzhiye.
Moskva, Izd-vo Dosaaf, 1964. FI00106268-V
FTD-HT-23-809-67

Investigation of the Turbulent Boundary Layer
Formed by the Flow of a Compressible Gas
Around a Plate, Accompanied by Heat Transfer,
by L. M. Zysina-Molozhen, I. N. Soskova.
RUSSIAN, per, Teplo- i Massopereenos, Teplo- i
Massopereenos Pri Vzaimodeystvii Tal s Potokami
Zhidkostey i Gazov. Minsk, Nauka i Tekhnika,
Vol 2, 1965, pp 305-312.
*FTD-HT-67-775

Application of Similarity Theory in Statistical
Analysis of Anisotropic Turbulence, by
S. G. D'yakonov, A. G. Usmanov.
RUSSIAN, per, Teplo- i Massopereenos, Teplo-
i Massopereenos pri Vzaimodeystvii Tal s
Potokami Zhidkostey i Gazov. Minsk, Nauka
i Tekhnika, Vol 2, 1965, pp 369-376.
*FTD-HT-775-67

Thermodynamics and Heat Transfer, by
A. V. Bolgarskiy, G. A. Mukhachev, 592 pp.
RUSSIAN, bk, Termodinamika i Teploperedacha,
1964, pp 1-458. FI00087268-V
FTD-HT-67-182

Relaxation of Local Perturbation in a Quantum
Vibrational System, by A. P. Purga, 13 pp.
RUSSIAN, per, AN ESTSSR. Institut Fiziki i
Astronomii. Trudy, Issue 27, 1964, pp 57-68.
FI00078668-V
FTD-MT-24-92-67

The Stability and Evolution of Magnetohydro-
dynamics, by V. I. Karpman, 8 pp.
RUSSIAN, per, AN LatSSR. Institut Fiziki
Trudy, Vol 4, 1964, pp 15-22. FI00078168-V
FTD-MT-24-182-67

Regenerative Optic Quantum Amplifiers, by
N. G. Basov.
RUSSIAN, per, AN SSSR. Fizicheskii institut.
Trudy, Kvantovaya radiofizika, Vol 31, 1965,
pp 74-95.
*FTD-MT-67-31

Scientific
Physics (Contd)

Problems of Construction and Investigation of the Operation of a Hydrogen-Atom-Beam Maser, by N. G. Basov.
RUSSIAN, per, AN SSSR. Fizicheskiy institut. Trudy. Kvantovaya radiofizika, Vol 31, 1965, pp 139-177.
*FTD-MT-67-31

Contribution to the Theory of the Nonlinear Interaction of Plasma Waves, by L. M. Kovrizhnykh.
RUSSIAN, per, Trudy AN SSSR Fizika Plazmy Fizicheskiy Institut, Vol 32, 1966, pp 173-205.
*FTD-MT-24-85-68

Theory of Nonlinear Optical Phenomena in Extrinsic Semiconductors, by V. I. Ponomarenko, 28 pp.
RUSSIAN, rpt, AN USSR. Institut Poluprovodnikov. Trudy Respublikanskogo Seminara po Kvantovoy Elektronike. Kvantovaya Elektronika, 1966, pp 13-33. FI00079968-V
FTD-MT-24-178-67

Electrosimulation of Heat Exchange in Heat Exchangers of the Regenerative Type, by V. P. Vesalov, A. V. Temnikov, 8 pp.
RUSSIAN, per, Kybyshchev. Aviatsonnyy Institut. Trudy, No 15, 1963, pp 287-293. FI00077568-V
FTD-MT-24-119-67

Theoretical Calculation of Certain Quantities, Influencing the Transmission of Spatial Characteristics of the Apparent Source of Sound, by V. S. Man'kovskiy, 19 pp.
RUSSIAN, per, Leningradskogo Instituta Kinozhenerov. Trudy, Issue 10, 1964, pp 75-88. FI00081968-V
FTD-MT-67-73

Experimental Investigation of the Thin-Film Parametron Under Stationary Conditions, by V. T. Dobromyslova.
RUSSIAN, per, Trudy Leningrad. Politehnicheskoy institut. Teoriya i tekhnika vychislitel'nykh ustroystv, No 1, 1967, pp 174-178.
*FTD-HT-23-431-68

Investigation of Acoustic Cases of Vibration Combustion, by V. B. Shteynberg.
RUSSIAN, per, Trudy Leningrad. Tsentral'nyy Nauchno-issledovatel'skiy i proyektno-konstruktorskiy kotloturbinnyy institut. Teoriya i Praktika put'satsionnogo Goreniya, No 64, 1965, pp 42-45.
*FTD-HT-23-425-68

Scientific
Physics (Contd)

General Regularities of Formation of Crystal Structures of Elements Depending on Electron Structure of Atoms, by V. M. Karashchuk, 46 pp.
RUSSIAN, per, Moscow. Institut Inzhenerov Zheleznodorozhnogo Transporta. Trudy, No 165, 1963, pp 16-51. FI00096068-V
FTD-MT-65-583

Surface Ionization of Iodine and Sodium on an Incandescent Polycrystalline Tantalum Thread, by Ye. P. Sytaya and N. G. Shuppe, 13 pp.
RUSSIAN, per, Tashkent. Universitet. Nauchnyye Trudy, No 221, 1963, pp 103-112. FI00089468-V
FTD-MT-67-58

Ukrainian Journal of Physics.
RUSSIAN, bk, Ukrainskii Fizicheskii Zhurnal, 1969.
Plenum Press

On the Combination of the Reduction Method with the Method of Successive Approximations in the Problem of the Forced Vibrations of a Rod of Variable Cross-Section, by L. I. Kuznetsov.
RUSSIAN, per, Leningrad Univ. Vestnik, No 19, 1967, pp 83-87.
*Dept of Navy/APL/JHU J-1155

About Approximate Integration of Equations of Disturbed Motion in the Case of One Special Root, by G. I. Mal'nikov.
RUSSIAN, per, Leningrad. Universitet. Vestnik. Seriya Matematiki, Mekhaniki i Astronomii, No 4, 1963, pp 112-123. FI00094768-V
FTD-MT-64-146

Scattering of Atoms of Gas on a Rough Wall Formed by Two Scales of Unevenness, by R. N. Miroshin.
RUSSIAN, per, Leningrad. Universitet. Vestnik. Seriya Matematiki, Mekhaniki i Astronomii, No 4, 1963, pp 154-156. FI00094768-V
FTD-MT-64-146

Statistical Distribution of Boltzmann as Solution of Kinetic Equations for Gas Mixtures, by S. V. Vallander, I. A. Yegorova, 18 pp.
RUSSIAN, per, Leningrad. Universitet. Vestnik. Seriya Matematiki, Mekhaniki i Astronomii, No 2, 1964, pp 57-70. FI00097668-V
FTD-MT-64-357

Scientific
Physics (Contd)

Radiation of Gas Volumes with Arbitrary Distribution of Parameters, by Z. S. Galanova, 10 pp. RUSSIAN, per, Leningrad. Universitet. Vestnik. Seriya Matematiki, Mekhaniki i Astronomii, No 2, 1964, pp 71-80. FI00097668-V
FTD-MT-64-357

The Sears Theory of Longitudinal Collision of Rods, by S. A. Zegzhda, 12 pp. RUSSIAN, per, Leningrad. Universitet. Vestnik. Seriya Matematiki, Mekhaniki i Astronomii, No 2, 1964, pp 81-90. FI00097668-V
FTD-MT-64-357

Calculation of Laminar Boundary Layer on Bodies of Revolution, by L. A. Kulonen, 16 pp. RUSSIAN, per, Leningrad. Universitet. Vestnik. Seriya Matematiki, Mekhaniki i Astronomii, No 2, 1964, pp 91-106. FI00097668-V
FTD-MT-64-357

Conical Flows of Ideal Incompressible Liquid, by N. V. Smirnov, 11 pp. RUSSIAN, per, Leningrad. Universitet. Vestnik. Seriya Matematiki, Mekhaniki i Astronomii, No 2, 1964, pp 107-115. FI00097668-V
FTD-MT-64-357

The Extension of the Chapman-Enskog Method to a Reactive Mixture of Gases with Internal Degrees of Freedom, by S. V. Vallander, I. A. Yegorova, 8 pp. RUSSIAN, per, Leningrad. Universitet. Vestnik. Seriya Matematiki, Mekhaniki i Astronomii, No 2, 1964, pp 155-161. FI00097668-V
FTD-MT-64-357

Supersonic Flow Past Bodies of Rotation with Annular Gaps, by M. G. Morozov and Yu. V. Baryshev, 6 pp. RUSSIAN, per, Moscow. Universitet. Vestnik. Seriya I. Matematika, Mekhanika, No 6, 1966, pp 108-113. FI00077868-V
FTD-MT-24-163-67

Unstable Convection Heat Exchange and Hydrodynamics in Channels (Survey of Literature on Single-Phase Heat Transfer Agents), by E. K. Kalinin, 23 pp. RUSSIAN, per, AN BSSR. Vesti. Seriya Fiziko-Tekhnicheskikh Nauk, No 4, 1966, pp 1-22. FI00079768-V
FTD-MT-24-188-67

Scientific
Physics (Contd)

Vibrometry, by Yu. I. Iorish, 872 pp. RUSSIAN, bk, Vibrometriya; Izmereniye Vibratsii i Udarov. Obshchaya Teoriya. Metody i Pribery, 1963, pp 1-771. FI00088068-V
FTD-MT-65-217

Transverse Motion of Plasma in a Magnetic Field, by L. I. Yelizarov and A. V. Zharinov, 14 pp. RUSSIAN, bk, Yadernyy Sintez, Part 2, 1962, pp 699-704. FI00087968-V
FTD-MT-67-77

Instability of Discharge with an Incandescent Cathode in a Magnetic Field at Low Pressures, by M. A. Vlasov, Ye. I. Dobrokhotoy, 32 pp. RUSSIAN, per, Yadernyy Sintez, Issue No 6, 1966, pp 24-34. FI00082668-V
FTD-MT-67-75

Flow Around a Body by a Flux of Strongly Rarefied Plasma, by N. T. Pashchenko, 14 pp. RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 3-10. FI00096168-V
FTD-MT-65-161

Diffusion and Conductivity in a Partially Ionized Multitemperature Gas Mixture, by V. A. Polyanskiy, 13 pp. RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 11-17. FI00096168-V
FTD-MT-65-161

Dispersion of a Heated Mass of Gas in Regular Conditions, by I. V. Nemchinov, 19 pp. RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 18-29. FI00096168-V
FTD-MT-65-161

Nonlinear Geometric Acoustics. Weak Shock Waves, by P. F. Korotkov, 8 pp. RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 30-37. FI00096168-V
FTD-MT-65-161

Burning Stability of Powder, by A. G. Istratov, V. B. Librovich, 6 pp. RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 38-43. FI00096168-V
FTD-MT-65-161

Scientific
Physics (Contd)

Asymptotic Methods of Hydrodynamic Theory of Stability, by G. M. Zaslavskiy, S. S. Moiseyev, 12 pp.

RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 44-55.
FI00096168-V
FTD-MT-65-161

One Case of Free Convection of a Liquid in the Presence of Dissolving and Absorbing Walls, by G. A. Bugayenko, 3 pp.

RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 56-58.
FI00096168-V
FTD-MT-65-161

Splitting a Stream of Liquid, Streamlined by a Gas Flow, by V. A. Borodin, L. N. Britneva, 7 pp.

RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 59-65.
FI00096168-V
FTD-MT-65-161

Rheological Properties of Polymers in the Fluid State, by G. V. Vinogradov, A. Ya. Malkin, 9 pp.

RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 66-74.
FI00096168-V
FTD-MT-65-161

Polymer Creep in the Vitreous State, by A. V. Dolgov, N. I. Malinin, 13 pp.

RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 75-82.
FI00096168-V
FTD-MT-65-161

Rupture of a Body with Linear Dislocation, by M. Ya. Leonov, 13 pp.

RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 83-90.
FI00096168-V
FTD-MT-65-161

Studies in Breaking of Brittle Splices by Using Fracture Theory Methods, by

B. M. Malyshev, R. L. Selganik, 11 pp.
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 91-101.
FI00096168-V
FTD-MT-65-161

Scientific
Physics (Contd)

The Theory of the Axially Symmetric State of an Ideal Plastic Material, by G. I. Rykovtsev, D. D. Ivlev, 13 pp.

RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 102-108.
FI00096168-V
FTD-MT-65-161

Theory of Viscoelastic Multilayers of Shells with Rigid Fillers with the Existence of Finite Bending, by E. I. Grigolyuk, P. P. Chulkov, 9 pp.

RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 109-117.
FI00096168-V
FTD-MT-65-161

Dependence of Dimensions of Crater on Hardness of Target, by Yu. I. Fadeyenko, 2 pp.

RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 118-119.
FI00096168-V
FTD-MT-65-161

Similarity of Surface Waves During Explosions in the Ground, by S. S. Grigoryan, 7 pp.

RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 120-122.
FI00096168-V
FTD-MT-65-161

Approximate Equation of State of Solid Bodies, by V. P. Koryavov, 4 pp.

RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 123-126.
FI00096168-V
FTD-MT-65-161

Experimental Investigation of Flow Around Blunted Bodies by a Flat Flow of a Plastic Medium, by I. G. Bulina, V. P. Myashnikov, 11 pp.

RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 127-131.
FI00096168-V
FTD-MT-65-161

Calculation of Flow Around a Plate by a Liquid-Drop Liquid with Variable Viscosity, by

V. P. Kashkarov, A. T. Luk'yanov, 3 pp.
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 132-134.
FI00096168-V
FTD-MT-65-161

Scientific
Physics (Contd)

The Theory of Nonstationary Surface Waves, by Yu. A. Berezin, V. I. Karpman.
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 135-137.
FI00096168-V
FTD-MT-65-161

The Structure of Flow in Electrodischarge Shock Tubes, by M. I. Vorotnikova, R. I. Soloukhin, 3 pp.
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 138-140.
FI00096168-V
FTD-MT-65-161

The Structure of Shock Waves in the Case of Phase Transitions of the First Kind, by N. M. Kuznetsov, 5 pp.
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 140-141.
FI00096168-V
FTD-MT-65-161

Flow Around a Circular Plate Under Conditions of a Molecular Boundary Layer, by V. A. Perepukhov, 3 pp.
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 142-144.
FI00096168-V
FTD-MT-65-161

Hypersonic Flow Around Thin Dulled Bodies with Physicochemical Transformation of Gas in a High-Entropy Shell, by V. V. Lamev, 4 pp.
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 145-148.
FI00096168-V
FTD-MT-65-161

Retardation Radiation of Electrons During Scattering by Neutral Atoms, Taking into Account the Collisional Correlations, by Yu. P. Rayser, 3 pp.
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 149-151.
FI00096168-V
FTD-MT-65-161

Measuring the Flow of a Fluid in a Circular Pipe by the Magnetohydrodynamic Method, by A. Ye. Yakubenko, 4 pp.
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 151-154.
FI00096168-V
FTD-MT-65-161

Scientific
Physics (Contd)

Certain Methods of Investigation of Nonstationary Phenomena in Shock Tubes, by M. K. Berezina, A. N. Semenov, 6 pp.
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 154-159.
FI00096168-V
FTD-MT-65-161

Experimental Determination of Speed of Propagation of Sound Waves in Saturated Water Vapor at High Pressures, by V. I. Avdonin, I. I. Novikov, 4 pp.
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 159-162.
FI00096168-V
FTD-MT-65-161

Nonstationary Radiant-Convection Heat Exchange on Rectangle, by A. L. Burka, 9 pp.
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 162-166.
FI00096168-V
FTD-MT-65-161

Non Steady-State Burning of Thin Plates of Powder, by Yu. A. Gostintsev, A. D. Margolin, 2 pp.
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1964, pp 167-168.
FI00096168-V
FTD-MT-65-161

On Drawing Electron Beams from a Vacuum into a Gas Through a Gas-Dynamic Window, by A. M. Trokhan
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1965, pp 108-111.
*FTD-MT-23-1266-67

Extension of Limiting Relative Friction and Heat Transfer Laws to Nonisothermal Gas Flows With Finite Reynolds Number, by A. I. Leont'yev.
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1965, pp 162-166.
*FTD-MT-23-1266-67

Excitation of Generation in Solutions of Thirteen Organic Dyes with the Aid of a Giant Ruby-Laser Pulse, by A. N. Rubinov.
RUSSIAN, per, Zhurnal Prikladnoy Spektroskopii, Vol 7, No 3, 1967, pp 327-335.
*FTD-MT-24-187-68

Occurrence of Angular Oscillation Modes When a Laser Cavity Mirror is Tilted, by M. P. Vanyukov.
RUSSIAN, per, Zhurnal Prikladnoy Spektroskopii, Vol 7, No 3, 1967, pp 336-339.
*FTD-MT-24-187-68

Scientific
Physics (Contd)

Investigation of Temperature Deformations of Ruby-Laser Crystals, by N. I. Grishmanova.
RUSSIAN, per, Zhurnal Prikladnoy Spektroskopii, Vol 7, No 3, 1967, pp 340-343.
*FTD-MT-24-187-68

Photoelectric Method of Investigating Pump Energy Distribution Over the Cross Section of Laser Rods, by L. A. Kravtsov.
RUSSIAN, per, Zhurnal Prikladnoy Spektroskopii, Vol 7, No 3, 1967, pp 344-348.
*FTD-MT-24-187-68

Influence of the Rate of Switching of the Optical Cavity on the Laser Emission Characteristics, by I. F. Balashov.
RUSSIAN, per, Zhurnal Prikladnoy Spektroskopii, Vol 7, No 3, 1967, pp 354-359.
*FTD-MT-24-187-68

The Theory of Mobility, Hall Effect and Magnetoresistance in Semiconductors with Non-Uniform Concentration of Charged Ions, by Yu. K. Korniyushin, 6 pp.
UKRAINIAN, per, Ukr Fis Zh, Vol 12, No 8, 1967, pp 1327-1330.
Dept of Navy/APL/JHU TC 230-T543

An Analysis of the Combination Scattering Spectrum of Dimethyl Benzene, by Liu Wen-pai, Chang Pao-sen, 13 pp.
CHINESE, per, Hua Hsueh T'ung Pao, No 1, 1966, pp 30-34. P100082868-V
FTD-MT-66-800

Isotope Separation by Gaseous Centrifugation. FRENCH, per, Atomic Energy Newsletter, No 782, 14 Mar 1967.
Dept of Navy NIC tr 2598

Specific Variations in Some Mechanical Properties of Dense and Porous Refractory Products Under the Influence of Different Thermal Cycles, by J. P. Kiehl, G. Valentin, 26 pp.
FRENCH, rpt, Centre de Recherches de la Societe General des Produits, 1967.
AEC/LB/G-2586

Mechanical Properties of Some Ultra-Refractory Materials at High Temperatures, by A. Rivert & J. Poulignier, 20 pp.
FRENCH, per, Colloque sur les Matériaux Fragiles, 4-7 Sept 1967, pp 1-20. P500085466-V
Dept of Navy NIC tr 2579

Scientific
Physics (Contd)

Infrared Absorption Spectra of Powdered Solids, by S. Lecomte.
FRENCH, per, Comptes Rendus, Vol 208, 1939, pp 1401-1403.
*NASA TT F-11,798

Interpretation of the Infrared Absorption Spectra of Metallic Sulfates, Simple or Double, by C. Duval.
FRENCH, per, Comptes Rendus, Vol 227, 1948, pp 1153-1154.
*NASA TT F-11,799

The Behaviour of Homogeneous Steel Plates under Static and Dynamic Stress, by Chr. Tery, Ch. Jone.
FRENCH/GERMAN, rpt, Franco-German Research Institute, St Louis, France Technical Communication No T 28/65, 25 pp.
*ACSI J-4921
*FSTC-MT-23-166-68

The Attenuation of Shock Waves in Tunnels, Expansion Chambers and Wall Linings, by C. Thery, Ch. Pothea-Laurent.
FRENCH, rpt, Franco-German Research Institute, St Louis, France Technical Communication No T 30/65, 32 pp.
*ACSI J-4920
*FSTC-MT-23-168-68

Study of a High Frequency Discharge in Argon at Atmospheric Pressure by Calorimetric Methods, by Jean Besombes-Vailhe.
FRENCH, per, Revue de Physique Appliquee, Vol 2, No 12, Dec 1967, pp 225-234.
*NASA TT F-11,835

Study of Heavy Ion Tracks in Natural Minerals of Terrestrial and Extra-Terrestrial Origin, by Michel Maurette, 66 pp.
FRENCH, per, Societe Francaise de mineralogie et de cristallographie, Bulletin 89, 1966, pp 41-79. P500085768-V
Dept of Navy NIC tr 2570

Observation of Plasma Resonances with the Aid of Microwave Emission, by K. Kliefoth and H. Prinaler.
GERMAN, per, Beitrag zur der Plasmaphysik, Vol 7, No 1-2, 1967, pp 83-95.
*FTD-MT-23-241-68C

Scientific
Physics (Contd)

The Determination of the Molecular Weight and the Molecular Structure of Different and Multiple Forms of Lactate Dehydrogenase. II. The Isozymes of the Heart-Muscle Type, by Rainer Jaenicke, 30 pp. GERMAN, per, Biochimica et Biophysica Acta, No 85, 1964, pp 186-201. F500085668-V
Dept of Navy NIC tr 2575

High Temperature Energy Systems with Plasma Reactors and Inductive Magnetoplasma-dynamic Convertors, by W. Peschka.
GERMAN, rpt, Deutsche Versuchsanstalt fur Luft- und Raumfahrt, Stuttgart, Inst Fuer Energie-wandlung und Elektrische Antriebe, DLR-FB-67-59, N68-11139, 25 pgs, Sept 1967.
*NASA TT F-11,825

Multi-Coloured Examples of X-Ray Scanning Pictures in the Research into Heterogeneous Zones Using the Electron Probe Analyser, by G. Lennartz & H. de Laffolie.
GERMAN, per, IEW-Techn. Ber., Vol 6, No 4, 1966, pp 201-207.
*BISI 6400

Report of the Conference "Lasers and Their Applications", by G. Gobel & R. Hultsch.
GERMAN, per, Feingeratetechnik, No 4, Apr 1967, pp 185-189.
Dept of Navy NIC tr 2577

Concerning the Problem of Buckling in the Anisotropic Rectangular Plate, by A. Pflueger.
GERMAN, per, Ingenieur-Archiv, Vol XVI, 1947, pp 111-120.
Dept of Navy NIC tr 2571

Fractionating Nozzle Separation of the Uranium Isotopes through Use of Light Supplementary Gases, by E. W. Becker & K. Bier.
GERMAN, per, Journal of Scientific Research, Vol 18a, No 2, 1963, pp 246-250.
Dept of Navy NIC tr 2597

Some Consideration on Aerial Recording and Transmission Operations, by G. Steinke, 10 pp.
GERMAN, per, Nachrichtentechnik, Vol 15, No 7, 1965, pp 263-267. F100077168-V
FTD-HT-66-762

Directional Distribution in the Reflection of Heat Radiation and Its Effect on Heat Transfer, by Benjamin Munich, 89 pp.
GERMAN, rpt, Die Richtungsverteilung bei der Reflexion von Wärmestrahlung und ihr Einfluss auf die Wärmeübertragung, 1955. F910128268-V
NASA TT F-497

Scientific
Physics (Contd)

X-Ray Flash Technology, by G. Thomer.
GERMAN, bk, Short-Time Physics, 1967, pp 328-366.
*NASA TT F-11,819

Photodielectric Effect in Cadmium Sulphide Crystals, by I. Broser & P. Brumm, 14 pp.
GERMAN, per, Zeitschrift fur Physik, Vol 179, 1964, pp 367-378. F500092468-V
Dept of Navy NIC tr 2592

Measurement of Viscosities of Gases at High Pressure. Part 2. Viscosities of Nitrogen and Mixtures of Nitrogen and Hydrogen, by Hiroji Iwasaki.
JAPANESE, per, Tohoku University, Research Inst, Science Reports, Series A, No 6, 1954, pp 296-307.
*NASA TT F-11,839

Masers and Lasers, by H. Klejman.
POLISH, bk, Masery i Lasery (Nowe Zdobycze Elektroniki), 1967, pp 5-292.
*ACSI J-4841
*FSTC HT-23-114-68

Propulsion & Fuels

Combustion Processes and Heat Transfer in the Combustion of Liquid Fuel at High Pressure, by V. M. Ivanov.
RUSSIAN, per, AN SSSR, Institut Goryuchikh Iskopyayemykh. Novyye Metody Shhiganiya Topliv i Voprosy Teorii Goreniya, Moscow, 1965, pp 146-161.
*FTD-HT-24-198-68

The Nature of Ignition of Atomized Fuels from the Diffusion and Kinetics Point of View, by Yu. B. Sviridov.
RUSSIAN, rpt, Sgoraniya i Smesobragovaniya v Disalvakh, M. AN SSSR, 1960, pp 98-112.
*FTD-HT-24-84-68

High Velocities and Jet Nozzles, by S. Tumanskii.
RUSSIAN, per, Aviatsiya i Kosmonavtika, No 7, 1967, pp 57-61.
Dept of Navy/APL/JHU T-2132

Combustion of a Polydisperse Liquid Fuel Jet, by R. S. Tyul'panov and O. P. Sobolev, 6 pp.
RUSSIAN, per, Fiz Goreniya i Vozvva, Vol 3, No 1, 1967, pp 94-97.
Dept of Navy/APL/JHU T-2128

Scientific
Propulsion & Fuels (Contd)

Vortex Effects in a Turbine Stage, by
M. Ye. Deych and Ye. Ye. Likhersak, 12 pp.
RUSSIAN, per, AN SSSR, Izvestiya, Energetika
i Transport, No 1, 1964, pp 109-115. FI00088668-V
FTD-MT-67-47

The Interaction of a Revolving Circular Cas-
cade of Blades and Guide Blades Streamlined
by Nonviscous Liquid, by Yu. T. Borshchevskiy,
16 pp.
RUSSIAN, per, AN SSSR, Sibirskoye Otdeleniye.
Izvestiya, Seriya Tekhnicheskikh Nauk, Vol 6,
No 2, 1963, pp 74-84. FI00088868-V
FTD-MT-67-46

Effect of Degree of Admission on the Performance
of a Centripetal Turbine, by A. Ye. Ovalevskaya.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh
Zavedeniy, Aviatzionnaya Tekhnika, No 3, 1966,
pp 141-148. FI00104668-V
FTD-MT-23-828-67

Calculation of the Working Process in a Cooled
Gas Turbine, by G. S. Saprykin, 17 pp.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh
Zavedeniy, Energetika, No 6, 1966, pp 53-62.
FI00094068-V
FTD-MT-67-63

Influence of the Form of Turbine Characteristic
on Its Average Efficiency in the Presence of a
Pulsating Gas Flow, by Ye. I. Sukhov, 8 pp.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh
Zavedeniy, Mashinostroyeniye, No 7, 1965,
pp 110-117. FI00089768-V
FTD-MT-67-60

Method of Appraising Jet Propellants in a Small
Combustion Chamber of a Turbojet Engine (TRD),
by Ye. R. Tereshchenko, B. D. Zaloga.
RUSSIAN, bk, Metody Otsenki Eksploatatsionnykh
Svoystv Reaktivnykh Topliv i Smesochnykh Mater-
ialov, 1966, pp 5-17. FI00083068-V
FTD-MT-66-99

Method of Appraising the Burning Characteristics
of Hydrocarbon Fuels in a Chamber Type Burner,
by L. D. Gogitidze, V. V. Makarenkov.
RUSSIAN, bk, Metody Otsenki Eksploatatsionnykh
Svoystv Reaktivnykh Topliv i Smesochnykh Mater-
ialov, 1966, pp 18-28. FI00083068-V
FTD-MT-66-99

Scientific
Propulsion & Fuels (Contd)

Methods of Appraising Thermal Stability of Jet
Fuels, by Ye. R. Tereshchenko.
RUSSIAN, bk, Metody Otsenki Eksploatatsionnykh
Svoystv Reaktivnykh Topliv i Smesochnykh Mater-
ialov, 1966, pp 27-37. FI00083068-V
FTD-MT-66-99

Method of Appraising Thermal Stability of Fuels
Under Dynamic Conditions, by M. Ye. Tararyshkin,
B. D. Zaloga.
RUSSIAN, bk, Metody Otsenki Eksploatatsionnykh
Svoystv Reaktivnykh Topliv i Smesochnykh Mater-
ialov, 1966, pp 38-45. FI00083068-V
FTD-MT-66-99

Determining Thermal Stability of Fuels in a
Rocking Autoclave, by M. P. Alekseyeva,
K. I. Ivanov.
RUSSIAN, bk, Metody Otsenki Eksploatatsionnykh
Svoystv Reaktivnykh Topliv i Smesochnykh Mater-
ialov, 1966, pp 46-49. FI00083068-V
FTD-MT-66-99

Determining the Pressure of Saturated Hydro-
carbon Fuel Vapor, by M. Ye. Tararyshkin,
O. M. Chechikina.
RUSSIAN, bk, Metody Otsenki Eksploatatsionnykh
Svoystv Reaktivnykh Topliv i Smesochnykh Mater-
ialov, 1965, pp 50-55. FI00083068-V
FTD-MT-66-99

Determining the Volatility of Hydrocarbon Fuels
at Low Pressures, by M. Ye. Tararyshkin.
RUSSIAN, bk, Metody Otsenki Eksploatatsionnykh
Svoystv Reaktivnykh Topliv i Smesochnykh Mater-
ialov, 1966, pp 56-59. FI00083068-V
FTD-MT-66-99

Determining the Pressure of Saturated Vapors
of Fuels on a Diaphragm Instrument, by
M. Ye. Tararyshkin, O. M. Chechikina.
RUSSIAN, bk, Metody Otsenki Eksploatatsionnykh
Svoystv Reaktivnykh Topliv i Smesochnykh Mater-
ialov, 1966, pp 61-68. FI00083068-V
FTD-MT-66-99

Methods of Appraising Fuel Losses Due to
Evaporation in Aircraft Tanks, by
P. A. Rybakov, M. Ye. Tararyshkin.
RUSSIAN, bk, Metody Otsenki Eksploatatsionnykh
Svoystv Reaktivnykh Topliv i Smesochnykh Mater-
ialov, 1966, pp 69-86. FI00083068-V
FTD-MT-66-99

Scientific
Propulsion & Fuels (Contd)

Determining Nonstationary Solubility of Gas in Hydrocarbon Fuels, by L. D. Gogitidze, V. P. Logvinuk.
RUSSIAN, bk, Metody Otsenki Eksploataatsionnykh Svoystv Reaktivnykh Topliv i Smesochnykh Materialov, 1966, pp 87-95. P100083068-V
FTD-MT-66-99

Instrument for Determining the Quantity of Gas Dissolved in a Liquid, by V. D. Borisov, L. D. Gogitidze.
RUSSIAN, bk, Metody Otsenki Eksploataatsionnykh Svoystv Reaktivnykh Topliv i Smesochnykh Materialov, 1966, pp 96-98. P100083068-V
FTD-MT-66-99

A Method of Appraising the Thermooxidizing Stability of Aviation Oils at Raised Temperatures, by L. V. Starikova, G. S. Bleyes.
RUSSIAN, bk, Metody Otsenki Eksploataatsionnykh Svoystv Reaktivnykh Topliv i Smesochnykh Materialov, 1966, pp 99-103. P100083068-V
FTD-MT-66-99

Methods of Determining the Temperature of Self-Ignition of Oils, by G. I. Yudina, V. N. Khaylova.
RUSSIAN, bk, Metody Otsenki Eksploataatsionnykh Svoystv Reaktivnykh Topliv i Smesochnykh Materialov, 1966, pp 126-130. P100083068-V
FTD-MT-66-99

Fuel Combustion in a Pulsating Flow, by B. D. Katsnel'son.
RUSSIAN, per, Leningrad. Tsentral'nyy nauchno-issledovatel'skiy i proyektno-konstruktor'skiy kotloturbinnyy institut. Trudy, Teoriya i praktika pul'satsionnogo goreniya, No 64, 1965, pp 3-7.
*FTD-MT-24-163-68

Fast Diesel Engines for Land and Marine Use, by U. Beyer.
GERMAN, per, Militartechnik, No 1, pp 37-38.
*ACSI J-4880
*FSTC-MT-23-151-68

New Electric Engine, by John Hagna & Kare Prytz.
NORWEGIAN, per, Vart Yrka, No 1, 17 Aug 1965, pp 10-13.
DIA LN 148-68

Scientific
Space Technology

Heat Protection for Space Ships, by A. Savchenko & F. Gimranova.
RUSSIAN, per, Aviatsiya i Kosmonavtika, No 3, pp 30-33.
Dept of Navy NIC tr 2602

Physiological Methods in Space, by M. L. Bykhovskiy.
RUSSIAN, per, Ekspperimental'naya Khirurgiya, No 1, 1962, pp 3-11.
*FTD-MT-23-243-68

Solar Wind and Shock Wave Propagating from Flares Through Interplanetary Space, by A. S. Dvoryashin.
RUSSIAN, per, AN SSSR, Krymskaya Astronfizicheskaya Observatoriya. Izvestiya, Vol 36, 1967, pp 126-133.
*FTD-MT-24-155-68

The Paths of Diurnal Artificial Earth Satellites, by I. V. Aleksakhin & E. P. Kompaniets.
RUSSIAN, per, Kosmicheskiye Issledovaniya, 2, 4, Jul-Aug 1964, pp 532-538. P200098
RSIC-753

Station for Visual Observations of Artificial Satellites of the Earth in Hanoi (Vietnam), by Nguyen S'ien, 2 pp.
RUSSIAN, per, Nabliudeniya Iskusstvennykh Sputnikov Zemli, No 1, 1962, p 71.
P100071968
FTD-MT-23-524-67

Lunar Station Television Camera, by A.S. Selivanov, et al, 17 pp.
RUSSIAN, per, Tekhnika Kino i Televideniya, Moscow, No. 1, Jan 68, pp. 9-17.
JPRS 45,374

Optimal Coplanar Flight Between Orbits with Calculation of Internal Reserve of Mass, Proportional to Time of Flight, by S. N. Kirpichnikov, 15 pp.
RUSSIAN, per, Leningrad. Universitet. Vestnik. Seriya Matematiki, Mekhaniki i Astronomiya, No 2, 1964, pp 116-129. P100097668-V
FTD-MT-64-357

Training of Cosmonauts for Orientation in Space, by A.A. Leonov and V.I. Lebedev, 7 pp.
RUSSIAN, bk, Vospriyativnoe Prostranstvo i Vremeni v Kosmose, 1968, Moscow, pp. 69-74.
JPRS 45,478

Scientific
Space Technology (Contd)

Cosmic Flight Watch-Standing and Psycho-Physiological Rhythms, by A.A. Leonov and V.I. Legedev, 8 pp.
RUSSIAN, bk, Vospriyatiye Prostranstva i Vremeni v Kosmose, Moscow, 1968, pp. 99-105.
JPRS 45,478

Determination of the Elements of Satellite Orbit by Position and Speed, by Milan Bursa, 11 pp.
CZECH, per, Studia Geophysica et Geodastica, Vol 10, No 4, 1966, pp 401-410. P100079868-V
FTD-MT-24-183-67

Space Flights to the Moon Discussed, 7 pp.
CZECH, per, Veda a Technika Mladezi, Prague, 9 Feb 68, pp. 93-94.
JPRS 45,210

An Introduction to the Problem of Low Thrust Orbital Transfer, by E. Cambi.
FRENCH, rpt, ELDO-TM-101, N67-38438, Aug 1967, 35 pp.
*NASA TT F-11,827

Interplanetary Spaceflight Missions, by T. Ginzburg.
GERMAN, per, Neue Zürcher Zeitung, No 226, April 10, 1968, pp 9-16.
*NASA TT F-11,810

Soviet Space Research.
HUNGARIAN, per, Muzaki Elet, No 17, 24 Aug 1967, pp 29-30.
*FTD-HT-23-439-68

Miscellaneous

Effective Utilization of the Natural Resources of Siberia, by A. Kokarev, 7 pp.
RUSSIAN, newspaper, Izvestiya, Moscow, 16 March 68, p. 2.
JPRS 45,218

Technological Layout for an Oil Refinery, by I.S. Vol'fon, et al., 5 pp.
RUSSIAN, per, Khimiya i Tekhnologiya Topliv i Masel, No. 3, Moscow, 1968, pp. 36-37.
JPRS 45,387

Scientific
Miscellaneous (Contd)

Article from Transport, 15 pp.
RUSSIAN, bk, Moskva-Gorkiy-Moskva, 1964, pp 54-70.
DIA LN 623-68

Russia's Future Health Resorts.
RUSSIAN, per, Na Stroykakh Rossii, No 12, Dec 1967.
DIA LN 580-68

Suppressing Air Pollution From Motor Vehicles, by O. Osipov and G. Vladimirov, 6 pp.
RUSSIAN, per, Narodnoye Khozyaystvo Kazakhstana, Alma-Ata, No. 2, 1968, pp. 83-84.
JPRS 45,229

Possibility of Experimental Study of the Properties of Time, by N.A. Kozyrev, 28 pp.
RUSSIAN, per, O Vozmozhnosti Eksperimental'nogo Issledovaniya Svoystv Vremeni, Sept 67, pp. 1-49.
JPRS 45,238

Movement of Small Units over Great Distances, by I. M. Nikishin & B. A. Vvedenskiy.
RUSSIAN, bk, Peredvisheniye Podrazdeleniy na Bol'shoye Rasstoyaniye, 1967, pp 3-145.
*ACSI J-4943
ID 2204014168

Along the Oka, 11 pp.
RUSSIAN, bk, Po Oke, 1964, pp 124-139.
DIA LN 622-68

Poor Railroad Transport at Donbass Metallurgical Plants, by Ya. Krivenko, 5 pp.
RUSSIAN, np, Pravda Ukrainy, Kiev, 12 March 68, p. 2.
JPRS 45,193

Selected Articles.
RUSSIAN, per, Rybnos Khozyaystvo, Vol 44, No 1, 1968.
*CFSTI TT 68-50467/1

In Creative Search.
RUSSIAN, per, Rybnos Khoz, Vol 44, No 1, 1968, p 47.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Scientific
Miscellaneous (Contd)

News of the Awarding of Honors,
RUSSIAN, per, Rybnoe Khoz., Vol 44, No 1, 1968,
pp 70-72.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

The Sixth Voyage of R/V "OB" 1960-1961.
RUSSIAN, bk, Shestoi reis d/s "Ob", 1963.
CFSTI TT 68-50311

Problems of Intraplant Railroads, by
V. Kolobov and Yu. Popov, 9 pp.
RUSSIAN, np, Sovetskaya Rossiya, 27 March
1968, p. 2 (Part 1), and 31 March 68,
p. 2 (Part 2).
JPRS 45,264

Last Year's Achievements in Transport Con-
struction, 6 pp.
RUSSIAN, per, Transportnoye Stroitel'stvo,
Moscow, Feb 68, pp. 1-2.
JPRS 45,193

The Pure Air Industry, 5 pp.
RUSSIAN, np, Trud, Moscow, 22 March 68, p. 2.
JPRS 45,218

New Pattern Recognition Technique, by
K. Bogdanov, 6 pp.
RUSSIAN, per, VDNKh Informatsionny Byulleten',
No. 3, 1968, pp. 33-35.
JPRS 45,405

The Information Category and Certain Problems
of Development, by D.A. Gushchin, 12 pp.
RUSSIAN, per, Vestnik Leningradskogo
Universiteta Ekonomika, Filosofiya, Pravda,
Vol. 23, No. 4, Leningrad, 1967, pp. 55-63.
JPRS 45,274

Largest in the Baltic Area.
RUSSIAN, np, Vodnyy Transport, 14 Dec 1967,
p 1.
DIA LN 466-68

Who Is to be the Stevedore?
RUSSIAN, np, Vodnyy Transport, 14 Dec 1967,
p 2.
DIA LN 466-68

Scientific
Miscellaneous (Contd)

Annual Meeting of Georgian Academy of
Sciences, 5 pp.
RUSSIAN, per, Zarya Vostoka, Tbilisi,
30 March 68, p. 3.
JPRS 45,284

Some Accomplishments of the Bulgarian Academy
of Science During 1966, by L. Iliyev.
BULGARIAN, per, Bulgarska Akademiya na Naukite,
Spisanie, No 2, 1967, pp 3-28.
*FTD-HT-23-446-68C

Telephone Directory of Southern Bohemia, 59 pp.
CZECH, bk, Telefonni Seznam pro kraj Jihocesky,
pp 1-20.
DIA LN 570-68

The Veleto-Lutic in the Light of Local and
Toponymic Names.
CZECH, bk, Topograficka Ceskoslovenske Akademie
ved, 1965, pp 7-11.
DIA LN 593-68

Working With the Scientific and Technical
Intelligentsia, by Zbynek Sojak, 10 pp.
CZECH, per, Zivot Strany, Prague, No. 5,
March 68, pp. 42-45.
JPRS 45,316

Scandia/Randers, 8 pp.
DANISH, per, Jernbane Tidende, No 2, 15 Jan 1968,
pp 15-17.
DIA LN 617-68

Table of Contents.
FINISH, per, Panssari, Vol 16, No 2, 5 Jul 1967,
p 2.
*ACSI J-4975
*FTC-HT-23-33-68

American-Swiss Cooperation.
FRENCH, per, Atomic Energy Newsletter, No 956,
7 Dec 1967.
Dept of Navy NIC tr 2598

Brevortia Gill 1861 and Ethmalosa Regan 1917,
by Th. Monod.
FRENCH, per, Bulletin de l'I.F.A.N., Vol 23,
Series A, No 2, 1961, pp 506-507.
*CFSTI TT 68-50080

General Order J-610, 11 pp.
FRENCH, per, Ordre General, 30 Jan 1968, pp 1-7.
DIA LN 694-68

Scientific
Miscellaneous (Contd)

List of Contracts for Concerted Action.
FRENCH, per, Le Progres Scientifique, No 109,
June 1967, pp 54-60.
ACSI J-4307
ID Incl to 2832022167

The Humanitarian International Convention and
Maritime Conflicts, by Henri Linon.
FRENCH, per, La Revue Maritime, No 241, March
1967, pp 294-311.
Dept of Navy NIC tr 2584

Operation of the French Radio and TV Broadcasting
Office.
FRENCH, bk, Transtele, Guide Annuaire, 3rd
Edition, 1966-1967, pp 62-66; 74-79; 81-84;
93-97; 121-123.
DIA LN 125-68

Brief Review.
GERMAN, per, Deutsche Eisenbahn Technik, Mar 1967,
pp 134.
DIA LN 106-68

Railroad Signal Technology Exhibit at the 1967
Leipzig Spring Fair.
GERMAN, per, Deutsche Eisenbahn Technik, Mar 1967,
pp 152-153.
DIA LN 106-68

Bratislava - Presburg - Pozsony - Three Names
of One City, by Ursula Enderle, 20 pp.
GERMAN, bk, Donaufahrt Entdeckungsfahrt, 1965,
pp 12-39.
DIA LN 407-68

Railroad Vehicles at the Leipzig Spring Fair,
1967.
GERMAN, per, Eisenbahn Praxis, June 1967,
pp 188-193.
DIA LN 105-68

Special Theme of the Month.
GERMAN, per, Eisenbahn Praxis, June 1967,
pp 208-212.
DIA LN 105-68

International Railroad Kaleidoscope, 45 pp.
GERMAN, per, Eisenbahn Praxis, June 1967,
pp 214 and inside cover.
DIA LN 105-68

Articles from Magazines Rail Vehicles, 27 pp.
GERMAN, per, Schienen Fahrzeuge, Vol II, No 5,
May 1967, pp 155; 159-162; 166-168.
DIA LN 112-68

Scientific
Miscellaneous (Contd)

The Rhine-Main Danube Link as a European Task,
by K. Foester, 11 pp.
GERMAN, rpt, Speech given in Rotterdam, Nether-
lands, June 1966, pp 1-14.
DIA LN 650-68

From Suhl - A Bull's Eye Hit, 5 pp.
GERMAN, per, Volksarmee, 5 Feb 1968, p 11.
DIA LN 662-68

Work Plans, Conferences Scheduled for the
Hungarian Chemical Societies, in 1968, by
Geza Hegyaljai Kiss, 12 pp.
HUNGARIAN, journal, Magyar Kemikusok Lapja,
Budapest, No. 3, 1968, pp. 121-125.
JPRS 45,422

A Visit to Hamer Work Shop.
NORWEGIAN, per, Vart Yrks, No 1, 17 Aug 1965,
pp 6-7.
DIA LN 148-68

Motor Vehicles, 7 pp.
PORTUGUESE, bk, Brasil Industrial, 1967-1968,
pp 166; 168; 170; 174; 176.
DIA LN 573-68

The Mukutart Ubdystrt/Supplies "Petrobras" with
Equipment, 5 pp.
PORTUGUESE, per, A Defesa Nacional, No 612,
Mar-Apr 1967, pp 179-182.
DIA LN 477-68

The Problem of Tanks in Brasil, 9 pp.
PORTUGUESE, per, A Defesa Nacional, No 613,
May-June 1967, pp 62-64; 129-132.
DIA LN 473-68

Official Brazilian Journal, 21 pp.
PORTUGUESE, per, Diario Oficial, No 109,
6 Dec 1967, pp 1-4.
DIA LN 432-68

Lusania Has Been a City for One Hundred Years,
by P. Rehder, 17 pp.
PORTUGUESE, per, Jornal do Brasil, 10 & 17 Dec
1967, pp 1-3.
DIA LN 475-68

Foam Mat Drying, by T. Lovric.
SERBO-CROATIAN, per, Kemija Tehnologija Namirina
11, 1966, pp 34-41.
*CFSTI TT 68-50073

Notes of the Fifty Largest Cities in Latin
America, 10 pp.
SPANISH, per, Boletin de la Sociedad Geografica
de Lima, Jan-Dec 1967, pp 35-45.
DIA LN 648-68

El Nacional, 35 pp.
SPANISH, bk, Suplemento Especial, La Verdad,
Dec 1967, pp 1-30.
DIA LN 651-68

INFORMATION RECEIVED DURING
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ON COVER-TO-COVER TRANSLATIONS

Acta Medica Jugoslavica, Vol 21, No 1, 1967. CFSTI	Byulleten' Eksperimental'noi Biologii i Meditsiny, Vol 62, No 9, 1966. CB
Dokhimiya, Vol 32, No 4, Part 2, July-Aug 1967. CB	Byulleten' Eksperimental'noi Biologii i Meditsiny, Vol 62, No 10, 1966. CB
Byulleten' Eksperimental'noi Biologii i Meditsiny, Vol 61, No 1, 1966. CB	Byulleten' Eksperimental'noi Biologii i Meditsiny, Vol 62, No 11, 1966. CB
Byulleten' Eksperimental'noi Biologii i Meditsiny, Vol 61, No 2, 1966. CB	Byulleten' Eksperimental'noi Biologii i Meditsiny, Vol 62, No 12, 1966. CB
Byulleten' Eksperimental'noi Biologii i Meditsiny, Vol 61, No 3, 1966. CB	
	Doklady Akademii Nauk SSSR, Vol 166, No 1-6, Jan-Feb 1966. CB
Byulleten' Eksperimental'noi Biologii i Meditsiny, Vol 61, No 4, 1966. CB	
Byulleten' Eksperimental'noi Biologii i Meditsiny, Vol 61, No 5, 1966. CB	Doklady Akademii Nauk SSSR, Vol 166, No 1-6, Jan-Feb 1966. CB
Byulleten' Eksperimental'noi Biologii i Meditsiny, Vol 61, No 6, 1966. CB	Doklady Ak Nauk SSSR, Vol 166-167, Jan-Aug 1966. CB
Byulleten' Eksperimental'noi Biologii i Meditsiny, Vol 62, No 7, 1966. CB	Doklady Akademii Nauk SSSR, Vol 166-168, Jan-June 1966. CB
Byulleten' Eksperimental'noi Biologii i Meditsiny, Vol 62, No 8, 1966. CB	Doklady Akademii Nauk SSSR, Vol 167, March-April 1966. CB

Doklady Akademii Nauk SSSR, Vol 167, No 2,
March-April 1966.
CB

Doklady Ak Nauk SSSR, Vol 168,
May-June 1966.
CB

Doklady Ak Nauk SSSR, Vol 168, No 1-6,
May-June 1966.
CB

Doklady Ak Nauk SSSR, Vol 168-169, May-August 1966
CB

Doklady Ak Nauk SSSR, Vol 169, No 1-6,
July-August 1966.
CB

Doklady Ak Nauk SSSR, Vol 169, No 1-6,
July-August 1966.
CB

Doklady Ak Nauk SSSR, Vol 169, No 1-6,
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CB

Doklady Akademii Nauk SSSR, Vol 169-171,
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CB

Doklady Ak Nauk SSSR, Vol 170, No 1-6,
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CB

Doklady Ak Nauk SSSR, Vol 170, No 1-6,
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CB

Doklady Ak Nauk SSSR, Vol 170-171, Sept-Dec 1966.
CB

Doklady Akademii Nauk SSSR, Vol 171, No 1-6,
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CB

Doklady Ak Nauk SSSR, Vol 171, No 1-6,
Nov-Dec 1966.
CB

Doklady Akademii Nauk SSSR, Vol 176, No 1-6,
Sept-Oct 1967.
CB

Doklady Ak Nauk SSSR, Vol 177, No 1-3, Nov 1967.
American Institute of Physics
Vol 12, No 11, May 1968

Elektrokhimiya, Vol 3, No 12, 1967.
CB

Elektrosvyaz, Part 1, Vol 21, No 12, 1967.
IEEE

Fiziologiya Rastenii, Vol 14, No 6, Nov-Dec 1967.
CB

Geodeziya i Aerofotografiya, Vol 2, No 1, 1968.
Am Geophysical Union

Geomagnetizm i Aeronomiya, Vol 7, No 5, 1967.
Am Geophysical Union

Gigiena i Sanitariya, Vol 32, No 7-9, July-Sept
1967.
CFSTI TT 67-51409/3

Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya,
Vol 31, No 6, 1967.
Columbia Technical Translations

Kosmicheskaya Biologiya i Meditsina, Vol 2, No 1,
1968.
JPRS 45,483

Kristallografiya, Vol 12, No 6, Nov-Dec 1967.
Am Institute of Physics
Vol 12, No 6, May-June 1968.

Meteorologiya i Gidrologiya, No 2, 1968.
JPRS 45,488

Mikrobiologiya, Vol 35, No 1, Jan-Feb 1966.
CB

Mikrobiologiya, Vol 35, No 2, March-April 1966.
CB

Mikrobiologiya, Vol 35, No 3, May-June 1966.
CB

Mikrobiologiya, Vol 35, No 4, July-August 1966.
CB

Mikrobiologiya, Vol 35, No 5, Sept-Oct 1966.
CB

Mikrobiologiya, Vol 35, No 6, Nov-Dec 1966. CB	Tekhnika i Vooruzheniye, No 3, 1968. *ACSI J-4948
Ogneupory, No 1-2, Jan-Feb 1967. CB	Tsvetnye Metally, Vol 39, No 12, 1966. Primary Sources Vol 7, No 12, 1966
Ogneupory, No 3-4, March-April, 1967. CB	Tyl i Snabzheniye, No 1, 1968. ACSI J-4396
Ogneupory, No 5-6, May-June 1967. CB	Tyl i Snabzheniye, No 2, 1968. *ACSI J-4945
Ogneupory, No 7-8, July-August 1967. CB	Tyl i Snabzheniye, No 3, 1968. *ACSI J-4981
Optika i Spektroskopiya, Vol 24, No 1, 1968. Optical Society of America	
Prikladnaya Biokhimiya i Mikrobiologiya, Vol 2, No 4, July-August 1966. The Paraday Press, Inc.	Tyl i Snabzheniye, No 4, 1968. *ACSI J-4982
Radiotekhnika, Part 2, Vol 22, No 12, 1967. IEEE	Ukrainskiy Fizicheskiy Zhurnal, Vol 12, No 2, 1967. AEC-tr-6869/2
Steklo i Keramika, Vol 23, No 1-2, Jan-Feb 1966. CB	Vestnik Akademii Meditsinskikh Nauk SSSR, Vol 23, No 4, 1968. JPRS 45,512
Steklo i Keramika, Vol 23, No 3-4, March-April 1966. CB	Vestnik Protivovozdushnoy Oborony, No 2, 1968. *ACSI J-4944
Steklo i Keramika, Vol 23, No 5-6, May-June 1966. CB	Vestnik Protivovozdushnoy Oborony, No 3, 1968. *ACSI J-4954
Steklo i Keramika, Vol 23, No 7-8, July-August 1966. CB	Vestnik Protivovozdushnoy Oborony, No 4, 1968. *ACSI J-5011
Steklo i Keramika, Vol 23, No 9-10, Sept-Oct 1966. CB	Vestnik Svyazi, Vol 28, No 2, 1968. JPRS 45,503
Steklo i Keramika, Vol 23, No 11-12, Nov-Dec 1966. CB	
Tekhnika i Vooruzheniye, No 12, 1967. ACSI J-4316	Voyenno-Meditsinskiy Zhurnal, No 4, 1967. ACSI J-2558
Tekhnika i Vooruzheniye, No 1, 1968. *ACSI J-4946	Voyenno-Meditsinskiy Zhurnal, No 12, 1967 ACSI J-4283
Tekhnika i Vooruzheniye, No 2, 1968. *ACSI J-4947	Voyenno-Meditsinskiy Zhurnal, No 1, 1968. ACSI J-4395

Voyenno-Meditsinskiy Zhurnal, No 2, 1968.
*ACSI J-5008

Voyenno-Meditsinskiy Zhurnal, No 3, 1968.
*ACSI J-5009

Voyenno-Meditsinskiy Zhurnal, No 4, 1968.
*ACSI J-5010

Voyenny Vestnik, No 12, 1967.
ACSI J-4150

Voyenny Vestnik, No 2, 1968.
*ACSI J-5005

Voyenny Vestnik, No 3, 1968.
*ACSI J-5006

Voyenny Vestnik, No 4, 1968.
*ACSI J-5007

Zavodskaya Laboratoriya, Vol 33, No 1, 1967.
CB

Zavodskaya Laboratoriya, Vol 33, No 2, 1967.
CB

Zavodskaya Laboratoriya, Vol 33, No 3, 1967.
CB

Zavodskaya Laboratoriya, Vol 33, No 4, 1967.
CB

Zavodskaya Laboratoriya, Vol 33, No 5, 1967.
CB

Zavodskaya Laboratoriya, Vol 33, No 6, 1967.
CB

Zavodskaya Laboratory, Vol 33, No 7, 1967.
CB

Zavodskaya Laboratoriya, Vol 33, No 8, 1967.
CB

Zavodskaya Laboratoriya, Vol 33, No 9, 1967.
CB

Zavodskaya Laboratoriya, Vol 33, No 10, 1967.
CB

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A translation of *Élektrokhiya*

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EDITOR'S NOTE

With the exception of certain trigonometric and hyperbolic functions, Soviet mathematical symbols are the same as those encountered in the American literature. For the reader's convenience a list of such exceptions and their American equivalents is given below.

Soviet Usage	American equivalent
Arch	\cosh^{-1}
Arcth	\coth^{-1} (ctnh^{-1})
Arsh	\sinh^{-1}
Arth	\tanh^{-1}
arccos	\cos^{-1} (arc cos)
arctg	\cot^{-1} (arc cot)
arcsin	\sin^{-1} (arc sin)
arotg	\tan^{-1} (arc tan)
ch	cosh
cosec	csc
ctg	cot (ctn)
cth	\coth (ctnh)
rot	cot
sch	sech
sh	sinh
tg	tan
th	tanh

SOVIET PLANT PHYSIOLOGY

A translation of *Fiziology Rastenii*

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SPACE BIOLOGY AND MEDICINE

Vol. 2, No. 1, 1968

-USSR-

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A Translation of "Kristallografiya"

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No 2, 1968

- USSR -

This publication comprises the translations (with the exception of five articles) of the Russian-language periodical *Meteorologiya i Gidrologiya* (English version above), N 2, Moscow, Hydrometeorological Press, February 1968, pages 3-125. Author's name and original source page accompany each article.

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A translation of *Mikrobiologiya*

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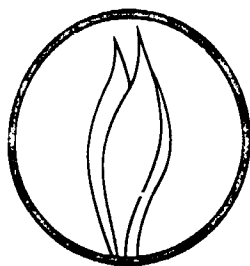
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Soviet Usage	American equivalent
Arch	cosh ⁻¹
Arcth	coth ⁻¹ (ctnh ⁻¹)
Arsh	sinh ⁻¹
Arth	tanh ⁻¹
arccos	cos ⁻¹ (arc cos)
arctg	cot ⁻¹ (arc cot)
arcsin	sin ⁻¹ (arc sin)
arctg	tan ⁻¹ (arc tan)
ch	cosh
cosec	csc
ctg	cot (ctn)
cth	coth (ctnh)
rot	curl
sch	sech
sh	sinh
tg	tan
th	tanh

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Russian Abbreviations in Text

CC CPSU.....	Central Committee, Communist Party, Soviet Union
Gintsvetmet.....	State Institute of Non-Ferrous Metals.
Giptonikel'.....	State Institute for the Design and Planning of Nickel Establishment
Gosplan.....	State Planning Committee of the Council of Ministers of the USSR
GOST.....	All-Union Standard
IL.....	Foreign Literature Publishing House
M.....	Moscow
Mekhanobr.....	Scientific Research Institute for Mechanical Concentration of Minerals
NTO.....	Scientific and Technical Society
Sovmarkhoz.....	Council of the National Economy
TsIINTsvetmet.....	Central Institute for Information on Non-Ferrous Metals
TsNIICHM.....	Central Scientific Research Institute on Ferrous Metallurgy
VNIIDP.....	All-Union Scientific Research Institute for the Processing of Petroleum and Gas for the Production of Synthetic Liquid Fuel
VNIITsvetmet.....	All-Union Scientific Research Institute of Non-Ferrous Metallurgy
VUZ.....	Institute of Higher Education

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VESTNIK OF THE USSR ACADEMY OF MEDICAL SCIENCES

Vol 23, No 4, April 1968

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A translation of *Zavodskaya Laboratoriya*

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Washington, D.C. 20505

7 September 2004

Ms. Roberta Schoen
Deputy Director for Operations
Defense Technical Information Center
7725 John J. Kingman Road
Suite 0944
Ft. Belvoir, VA 22060

Dear Ms. Schoen:

In February of this year, DTIC provided the CIA Declassification Center with a referral list of CIA documents held in the DTIC library. This referral was a follow on to the list of National Intelligence Surveys provided earlier in the year.

We have completed a declassification review of the "Non-NIS" referral list and include the results of that review as Enclosure 1. Of the 220 documents identified in our declassification database, only three are classified. These three are in the Release in Part category and may be released to the public once specified portions of the documents are removed. Sanitization instructions for these documents are included with Enclosure 1.

In addition to the documents addressed in Enclosure 1, 14 other documents were unable to be identified. DTIC then provided the CDC with hard copies of these documents in April 2004 for declassification review. The results of this review are provided as Enclosure 2.

We at CIA greatly appreciate your cooperation in this matter. Should you have any questions concerning this letter and for coordination of any further developments, please contact Donald Black of this office at (703) 613-1415.

Sincerely,

A handwritten signature in cursive script, appearing to read "Sergio N. Alcivar".

Sergio N. Alcivar
Chief, CIA Declassification Center,
Declassification Review and Referral
Branch

Enclosures:

1. Declassification Review of CIA Documents at DTIC (with sanitization instructions for 3 documents)
2. Declassification Status of CIA Documents (hard copy) Referred by DTIC (with review processing sheets for each document)



Processing of OGA-Held CIA Documents

The following CIA documents located at DTIC were reviewed
by CIA and declassification guidance has been provided.

OGA Doc ID	Job Num	Box	Fldr	Doc	Doc ID	Document Title	Pub Date	Pages	Decision	Proc Date
AD0831939	78-03109A	59	1	2	123	Consolidated Translation Survey Through 31 March 1968	3/31/1968	252	Approved For Release	3/25/2004
AD0833917	78-03109A	59	1	3	124	Consolidated Translation Survey Through 30 April 1968	4/30/1968	223	Approved For Release	3/25/2004
AD0835906	78-03109A	59	1	4	125	Consolidated Translation Survey Through 31 May 1968	5/31/1968	267	Approved For Release	3/25/2004
AD0838252	78-03109A	59	1	5	126	Consolidated Translation Survey Through 30 June 1968	6/30/1968	341	Approved For Release	3/25/2004
AD0839299	78-03109A	59	1	6	127	Consolidated Translation Survey Through 31 July 1968	7/31/1968	354	Approved For Release	3/25/2004
AD0841414	78-03109A	59	1	7	128	Consolidated Translation Survey Through 31 August 1968	8/31/1968	255	Approved For Release	3/25/2004
AD0844244	78-03109A	59	1	8	129	Consolidated Translation Survey Through 30 September 1968	9/30/1968	259	Approved For Release	3/25/2004
AD0845247	78-03109A	60	1	1	130	Consolidated Translation Survey Through 31 October 1968	10/31/1968	252	Approved For Release	3/25/2004
AD0847806	78-03109A	60	1	2	131	Consolidated Translation Survey Through 30 November 1968	11/30/1968	284	Approved For Release	3/25/2004
AD0848152	78-03109A	60	1	3	132	Consolidated Translation Survey Through 31 December 1968	12/31/1968	176	Approved For Release	3/25/2004
AD0848841	78-03109A	60	1	4	133	Consolidated Translation Survey Through 31 January 1969	1/31/1969	188	Approved For Release	3/25/2004
AD0850186	78-03109A	60	1	5	134	Consolidated Translation Survey Through 28 February 1969	2/28/1969	167	Approved For Release	3/25/2004
AD0851748	78-03109A	60	1	6	135	Consolidated Translation Survey Through 31 March 1969	3/31/1969	232	Approved For Release	4/5/2004
AD0853348	78-03109A	60	1	7	136	Consolidated Translation Survey Through 30 April 1969	4/30/1969	262	Approved For Release	3/25/2004
AD0856606	78-03109A	60	1	8	137	Consolidated Translation Survey Through 31 May 1969	5/31/1969	306	Approved For Release	3/25/2004
AD0857706	78-03109A	63	1	1	138	Consolidated Translation Survey Through 30 June 1969	8/22/1969	413	Approved For Release	3/25/2004
AD0858054	78-03109A	63	1	2	139	Consolidated Translation Survey Through 31 July 1969	9/3/1969	185	Approved For Release	3/25/2004
AD0860022	78-03109A	63	1	3	140	Consolidated Translation Survey Through 31 August 1969	10/3/1969	315	Approved For Release	3/25/2004
AD0860905	78-03109A	63	1	4	141	Consolidated Translation Survey Through 30 September 1969	9/30/1969	285	Approved For Release	3/25/2004
AD0861886	78-03109A	63	1	5	142	Consolidated Translation Survey Through 31 October 1969	10/31/1969	269	Approved For Release	3/25/2004
AD0863371	78-03109A	63	1	6	143	Consolidated Translation Survey Through 30 November 1969	11/30/1969	224	Approved For Release	3/25/2004
AD0864516	78-03109A	63	1	7	144	Consolidated Translation Survey Through 31 December 1969	12/31/1969	177	Approved For Release	3/25/2004